



**NAVY TRAINING SYSTEM PLAN**

**FOR THE**

**INTEGRATED MECHANICAL DIAGNOSTICS**

**HEALTH AND USAGE MONITORING SYSTEM**

**N88-NTSP-A-50-0105/D**

**AUGUST 2002**

**INTEGRATED MECHANICAL DIAGNOSTICS  
HEALTH AND USAGE MONITORING SYSTEM  
EXECUTIVE SUMMARY**

This Navy Training System Plan (NTSP) has been developed to identify the life cycle manpower, personnel, and training requirements associated with the Integrated Mechanical Diagnostics (IMD) Health and Usage Monitoring System (HUMS). The IMD HUMS is an Acquisition Category IVT program developed under the Commercial Operations and Support Savings Initiative and is in the Limited Rate Initial Production Phase of the Defense Acquisition System. Current plans are to install the IMD HUMS aboard Navy SH-60B Aircraft and Marine Corps CH-53E Aircraft. However, it is envisioned that all Navy and Marine Corps rotary wing aircraft will be provided with IMD HUMS capabilities in the future. IMD HUMS Initial Operating Capability is scheduled for October 2003 in the CH-53E and May 2004 in the SH-60B. The Navy Support Date and Material Support Date have not been established.

IMD HUMS is a system of computer processors, sensors, and diagnostic software installed on individual rotary wing aircraft. IMD HUMS performs diagnostic, health, and usage monitoring functions, and includes an associated ground based analysis and diagnostic system that interfaces to a Naval Aviation Logistics Command Management Information System Optimized Organizational Maintenance Activity.

The IMD HUMS will be operated by Marine Corps CH-53E Rotary Wing Pilots with Military Occupational Specialty (MOS) 7566, Marine Corps CH-53E Enlisted Aircrew personnel with MOS 6173, Navy SH-60B Rotary Wing Pilots with 1311 and 1312 Designator Codes, and Navy Enlisted SH-60B Aircrew personnel with Navy Enlisted Classification (NEC) 7873.

Maintenance of IMD HUMS will be conducted at two levels, organizational and depot. Organizational level maintenance will be performed by Marine Corps CH-53E Communication/Electrical System Technicians with MOS 6323, Marine Corps CH-53E Airframe Mechanics with MOS 6153, Marine Corps CH-53E Helicopter Mechanics with MOS 6113, Navy Aviation Electronics Technicians with NECs 8376 or 8876, and Navy Aviation Electrician's Mates, Navy Aviation Structural Mechanics and Navy Aviation Machinists Mates with NECs 8378 or 8878. The manufacturer will perform all depot level maintenance.

Initial IMD HUMS operator and maintainer training is being provided by the manufacturer and is underway. Follow-on operator training will be conducted at CH-53E and SH-60B Fleet Readiness Squadrons. Existing aircrew courses will be updated with IMD HUMS information. Follow on maintainer training will be provided by the Naval Air Maintenance Training Marine Units, and Naval Air Maintenance Training Units supporting the CH-53E and SH-60B Aircraft. Existing organizational level maintenance courses will be updated with IMD HUMS information. A Ready For Training date for follow-on operator and maintainer training is to be determined.

**INTEGRATED MECHANICAL DIAGNOSTICS  
HEALTH AND USAGE MONITORING SYSTEM**

The quantitative and qualitative manpower requirements identified in current Navy Activity Manpower Documents and Marine Corps Tables of Organization are sufficient to support the IMD HUMS without change.

**INTEGRATED MECHANICAL DIAGNOSTICS  
HEALTH AND USAGE MONITORING SYSTEM**

**TABLE OF CONTENTS**

	<b>Page</b>
Executive Summary .....	i
List of Acronyms .....	iii
Preface.....	vii
 <b>PART I - TECHNICAL PROGRAM DATA</b>	
A. Nomenclature-Title-Program .....	I-1
B. Security Classification.....	I-1
C. Manpower, Personnel, and Training Principals .....	I-1
D. System Description.....	I-1
E. Developmental Test and Operational Test .....	I-2
F. Aircraft and/or Equipment/System/Subsystem Replaced .....	I-4
G. Description of New Development .....	I-4
H. Concepts .....	I-7
1. Operational.....	I-7
2. Maintenance.....	I-7
3. Manning .....	I-8
4. Training.....	I-8
I. Onboard (In-Service) Training.....	I-35
J. Logistics Support.....	I-36
K. Schedules.....	I-37
L. Government-Furnished Equipment and Contractor-Furnished Equipment Training Requirements .....	I-40
M. Related NTSPs and Other Applicable Documents.....	I-40
 <b>PART II - BILLET AND PERSONNEL REQUIREMENTS .....</b>	II-1
<b>PART III - TRAINING REQUIREMENTS.....</b>	III-1
<b>PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS.....</b>	IV-1
<b>PART V - MPT MILESTONES.....</b>	V-1
<b>PART VI - DECISION ITEMS/ACTION REQUIRED.....</b>	VI-1
<b>PART VII - POINTS OF CONTACT.....</b>	VII-1

**INTEGRATED MECHANICAL DIAGNOSTICS  
HEALTH AND USAGE MONITORING SYSTEM**

**LIST OF ACRONYMS**

AD	Aviation Machinist's Mate
AE	Aviation Electrician's Mate
AFCS	Automatic Flight Control System
ALSP	Acquisition Logistics Support Plan
AM	Aviation Structural Mechanic
AMT	Avionics Maintenance Trainer
AMTCS	Aviation Maintenance Training Continuum System
AOB	Average Onboard
APT	Aircrew Procedures Trainer
AT	Aviation Electronics Technician
AW	Aviation Antisubmarine Warfare Operator
BIM	Blade Inspection and Maintenance
BMP	Bearing Monitoring Panel
BUNO	Bureau Number
CANTRAC	Catalog of Navy Training Courses
CDU	Cockpit Display Unit
CFE	Contractor-Furnished Equipment
CIN	Course Identification Number
CINCLANTFLT	Commander in Chief Atlantic Fleet
CINCPACFLT	Commander in Chief Pacific Fleet
CMT	Composite Maintenance Trainer
CNET	Chief of Navy Education and Training
CNI	Communications, Navigation, and Identification
CNO	Chief of Naval Operations
COMNAVAIRESFOR	Commander Naval Air Reserve Force
DT	Development Test
DTU	Data Transfer Unit
FFT	Fast Fourier Transforms
FRS	Fleet Readiness Squadron
FY	Fiscal Year
GBS	Ground-Base Station
GFE	Government-Furnished Equipment
GPS	Global Positioning System
GPWS	Ground Proximity Warning System

**INTEGRATED MECHANICAL DIAGNOSTICS  
HEALTH AND USAGE MONITORING SYSTEM**

**LIST OF ACRONYMS**

HMT	Helicopter Marine Training Squadron
HUMS	Health and Usage Monitoring System
IETM	Interactive Electronic Technical Manual
IMD	Integrated Mechanical Diagnostics
IOC	Initial Operational Capability
IPB	Illustrated Parts Breakdown
LAMPS	Light Airborne Multi-Purpose System
LAN	Local Area Network
LRIP	Limited Rate Initial Production
LRU	Line Replaceable Unit
LSA	Logistics Support Analysis
MATMEP	Maintenance Training Management and Evaluation Program
MCAS	Marine Corps Air Station
MCCDC	Marine Corps Combat Development Command
MOS	Military Occupational Specialty
MPU	Main Processor Unit
MPULV	Main Processing Unit Loader Verifier
MRC	Maintenance Requirements Card
MSD	Material Support Date
MTIP	Maintenance Training Improvement Program
MTU	Maintenance Training Unit
NA	Not Applicable
NALCOMIS	Naval Aviation Logistics Command Management Information System
NAMP	Naval Aviation Maintenance Program
NAMTRA MARUNIT	Naval Air Maintenance Training Marine Unit
NAMTRAGRU DET	Naval Air Maintenance Training Group Detachment
NAMTRAU	Naval Air Maintenance Training Unit
NAS	Naval Air Station
NATOPS	Naval Air Training and Operating Procedures Standardization
NAVAIR	Naval Air Systems Command
NAVPERSCOM	Naval Personnel Command
NAWCAD	Naval Air Warfare Center Aircraft Division
NEC	Navy Enlisted Classification
NOBC	Naval Officer Billeting Code
NS	Naval Station

**INTEGRATED MECHANICAL DIAGNOSTICS  
HEALTH AND USAGE MONITORING SYSTEM**

**LIST OF ACRONYMS**

NSD	Navy Support Date
NTSP	Navy Training System Plan
OATMS	OPNAV Aviation Training Management System
OBS	Onboard System
OFT	Operational Flight Trainer
OOMA	Optimized Organizational Maintenance Activity
OPNAV	Office of the Chief of Naval Operations
OPNAVINST	Office of the Chief of Naval Operations Instruction
OPO	OPNAV Principal Official
ORD	Operational Requirements Document
OT	Operational Test
PCMCIA	Personal Computer Memory Card International Association
PEO(A)	Program Executive Office (Air)
PMA	Program Manager, Air
RAST	Recovery Assist Securing and Traversing
RDC	Remote Data Concentrator
RFT	Ready For Training
ROBATS	Rotor Trim And Balance System
ST	Special Tool
TA	Training Agency
TBD	To Be Determined
TD	Training Device
TECHEVAL	Technical Evaluation
TEE	Training Effectiveness Evaluation
TEMP	Test and Evaluation Master Plan
TSA	Training Support Agency
TTE	Technical Training Equipment
ULSS	User Logistics Support Summary
VATS	Vibration Analysis Test Set
VIDS/MAF	Visual Item Display System/Maintenance Action Form
WST	Weapon System Trainer
WTT	Weapon Tactics Trainer

**INTEGRATED MECHANICAL DIAGNOSTICS  
HEALTH AND USAGE MONITORING SYSTEM**

**PREFACE**

This Draft Navy Training System Plan (NTSP) for the Integrated Mechanical Diagnostics (IMD) Health and Usage Monitoring System (HUMS) updates the Initial IMD HUMS NTSP, A-50-0105/I, dated February 2001, in accordance with guidelines set forth in the Navy Training Requirements Documentation Manual, Office of the Chief of Naval Operations (OPNAV) Publication P-751-1-9-97. Major changes included in this iteration of the NTSP are as follows:

- o Incorporation of the latest program information
- o Development of Parts II through VI

**PART I - TECHNICAL PROGRAM DATA**

**A. NOMENCLATURE-TITLE-PROGRAM**

**1. Nomenclature-Title-Acronym.** Integrated Mechanical Diagnostics (IMD) Health and Usage Monitoring System (HUMS)

**2. Program Elements.** 0604212N, 0204453N, 0204234N

**B. SECURITY CLASSIFICATION**

- 1. System Characteristics** ..... Unclassified
- 2. Capabilities** ..... Unclassified
- 3. Functions** ..... Unclassified

**C. MANPOWER, PERSONNEL, AND TRAINING PRINCIPALS**

- OPNAV Principal Official (OPO) Program Sponsor ..... CNO (N780)
- OPO Resource Sponsor..... CNO (N780)
- Developing Agency ..... NAVAIR (PMA261, PMA299)
- Training Agency ..... CINCLANTFLT  
CINCPACFLT  
CNET  
COMNAVRESFOR
- Training Support Agency..... NAVAIR (PMA205)
- Manpower and Personnel Mission Sponsor..... CNO (N12)  
NAVPERSCOM (PERS-4, PERS-404)
- Director of Naval Training ..... CNO (N795)
- Commander, Reserve Program Manager..... COMNAVAIRESFOR
- Marine Corps Force Structure..... MCCDC (C53)

## **D. SYSTEM DESCRIPTION**

**1. Operational Uses.** IMD HUMS is a system of computer processors, sensors, and diagnostic software, installed on individual rotary wing aircraft. IMD HUMS performs diagnostic, health, and usage monitoring functions, and includes an associated ground based analysis and diagnostic system that interfaces to a Naval Aviation Logistics Command Management Information System (NALCOMIS) Optimized Organizational Maintenance Activity (OOMA). Current plans are to install the IMD HUMS aboard Navy SH-60B and Marine Corps CH-53E Aircraft. However, it is envisioned that all Navy and Marine Corps rotary wing aircraft will be provided with IMD HUMS capabilities in the future.

**2. Foreign Military Sales.** No Foreign Military Sales are planned for the IMD HUMS. However, the IMD HUMS has potential applicability for all Department of Defense rotary wing aircraft.

## **E. DEVELOPMENTAL TEST AND OPERATIONAL TEST**

**1. Developmental Test and Evaluation.** All Developmental Test (DT) evolutions are being conducted under the cognizance of Naval Air Warfare Center Aircraft Division (NAWCAD) Patuxent River, Maryland.

### **a. CH-53E IMD HUMS**

**(1) Developmental Test-IIA.** DT-IIA was performed on a prototype IMD HUMS installed on a CH-53E Aircraft, Bureau Number (BUNO) 163086, at NAWCAD Patuxent River from September 1999 to September 2000. DT-IIA substantiated the basic system functional performance and hardware configuration stability sufficient to support a Limited Rate Initial Production (LRIP) decision in August 2000.

**(2) Developmental Test-IIB.** DT-IIB was performed on an enhanced prototype IMD HUMS installed on the same CH-53E Aircraft that was used for DT-IIA. Data collection flights conducted at Helicopter Marine Training Squadron (HMT) 302, New River, North Carolina, began in February 2002 and concluded in March 2002.

**(3) Developmental Test-IIC.** DT-IIC began at NAWCAD Patuxent River in April 2002 on an IMD HUMS that had been updated to a production representative configuration, installed on the same CH-53E Aircraft that was used for DT-IIA and DT-IIB. DT-IIC is scheduled for completion in late August 2002.

**(4) Developmental Test-IIIA.** DT-IIIA will be performed using the prototype IMD HUMS from DT-IIC, updated to reflect the latest production configuration. DT-IIIA is scheduled to begin in May 2003 and conclude in January 2004.

**(5) Developmental Test-IIIB.** DT-IIIB will be performed using the prototype IMD HUMS from DT-IIIA. DT-IIIB is scheduled to begin in February 2004 and conclude in July 2004.

## **b. SH-60B IMD HUMS**

**(1) Developmental Test-IIA.** DT-IIA was successfully performed on a prototype IMD HUMS installed on a SH-60B Aircraft, BUNO 164176, at NAWCAD Patuxent River from September 1999 to December 2001. DT-IIA substantiated the basic system functional performance and hardware configuration stability sufficient to support an LRIP decision in April 2001.

**(2) Developmental Test-IIB.** DT-IIB was performed on an enhanced prototype IMD HUMS installed on the same SH-60B Aircraft that was used for DT-IIA at NAWCAD Patuxent River from January 2002 to July 2002.

**(3) Developmental Test-IIC.** DT-IIC will be performed using the same prototype IMD HUMS from DT-IIA. Testing is scheduled to start in August 2002 and end in November 2002.

**(4) Developmental Test-IIIA.** DT-IIIA will be performed using the prototype IMD HUMS from DT-IIC, updated to reflect the latest production configuration. DT-IIIA is scheduled to begin in October 2003 and conclude in August 2004.

**(5) Developmental Test-IIIB.** DT-IIIB will be performed using the prototype IMD HUMS from DT-IIIA. DT-IIIB is scheduled to begin in August 2004 and conclude in December 2004.

**2. Operational Test and Evaluation.** All Operational Test (OT) evolutions will be conducted under the cognizance of the Commander Operational Test and Evaluation Force, Norfolk, Virginia.

## **a. CH-53E IMD HUMS**

**(1) Operational Test-IIA.** OT-IIA will be conducted using production representative IMD HUMS hardware and software installed in three CH-53E Aircraft. Successful completion of OT-IIA will support a recommendation regarding fleet introduction of IMD HUMS in CH-53E Aircraft. OT-IIA is scheduled to begin in November 2002 and conclude in April 2003.

**(2) Operational Test-IIIA.** OT-IIIA will be conducted using production representative IMD HUMS hardware and software installed in three CH-53E Aircraft. OT-IIIA is scheduled to begin in September 2004 and conclude in March 2005.

## **b. SH-60B IMD HUMS**

**(1) Operational Test-IIA.** OT-IIA will be conducted using production representative IMD HUMS hardware and software installed in three SH-60B Aircraft. Successful completion of OT-IIA will support a recommendation regarding fleet introduction of IMD HUMS in SH-60B Aircraft. OT-IIA is scheduled to begin in February 2003 and conclude in August 2003.

**(1) Operational Test-III A.** OT-III A will be conducted using production representative IMD HUMS hardware and software installed in three SH-60B Aircraft. OT-III A is scheduled to begin in February 2005 and conclude in September 2005.

**F. AIRCRAFT AND/OR EQUIPMENT/SYSTEM/SUBSYSTEM REPLACED.** The A/E-37T-32 Vibration Analysis Test Set on existing platforms will be phased out after IMD HUMS reached Full Operational Capability.

## **G. DESCRIPTION OF NEW DEVELOPMENT**

**1. Functional Description.** The IMD HUMS will provide timely and accurate information that will enhance maintenance and aircraft safety by identifying and precluding premature failure of aircraft systems. Prior to flight, a Personal Computer Memory Card International Association (PCMCIA) memory card (“credit Card” memory) is loaded with relevant aircraft BUNO data that resides in the IMD HUMS Ground-Based Station (GBS) and is downloaded into the IMD HUMS Onboard System (OBS). During flight, information such as vibration data, diagnostic results, and aircraft state information is recorded onto the PCMCIA memory card. After flight, the PCMCIA is removed from the aircraft and the information downloaded into a NALCOMIS OOMA. The IMD HUMS will use this post-flight data to generate any required Visual Item Display System/Maintenance Action Forms (VIDS/MAF), make logbook entries, and provide data needed to perform configuration and maintenance management. The IMD HUMS will provide the maintenance manager with Rotor and Tail Balance adjustment trending data, engine diagnostic and trending data, Scheduled and Periodic Maintenance interval adjustments with trending data, life limited component usage data, fatigue life data, exceedance tracking, and parts tracking.

**a. Onboard System.** The OBS is comprised of the following major components:

**(1) Cockpit Display Unit.** The Cockpit Display Unit (CDU) advises the aircrew of the IMD HUMS OBS status, aircraft component health, and recommended track and balance adjustments. The CDU is also designed to allow the aircrew to trigger system data acquisition during flight.

**(2) Data Transfer Unit.** The Data Transfer Unit (DTU) records all data received from the Main Processor Unit (MPU) onto a PCMCIA memory card. The DTU is also designed to allow transfer of information such as maintenance performed since last flight and changes to the system’s configuration tables from the GBS via the PCMCIA.

**(3) Remote Data Concentrator.** Two Remote Data Concentrators (RDC) collect aircraft status data. Each RDC converts the data it receives to a data stream that is sent to the MPU via a single line cable bus interface.

**(4) Main Processor Unit.** The MPU controls the IMD HUMS by performing the following functions:

- Acting as the communications link between all of the system's main components
- Calculating flight regimes
- Calculating track and balance solutions
- Monitoring drive train health status
- Processing all accelerometer, tachometer, and tracker raw data

Additionally, the MPU receives information from the RDCs, the drive train and Rotor Trim And Balance System (ROBATS) accelerometers, the Ground Proximity Warning System (GPWS), Air Data Computer, the Automatic Flight Control System (AFCS), the Global Positioning System (GPS), and the Bearing Monitoring Panel (BMP) when installed.

**(5) Optical Rotor Blade Tracker.** The Optical Rotor Blade Tracker provides blade track height and lead/lag data by timing pulses of blade passages from which the measurements are derived. This timing is then converted to distance data by use of a sensitivity constant based on the blade sensor installation geometry.

**(6) Junction Boxes.** Junction Boxes are used to collect data from a multitude of aircraft signals. Aircraft wiring that carry signals of interest are routed to the Junction Boxes where the signals are split and routed back to the aircraft source and to the RDC.

**(7) Remote Charge Converters.** One Remote Charge Converter (RCC) is mounted near each engine location. The RCC converts the incoming resistance value from the engine accelerometers to a workable voltage signal. This signal is routed directly to the MPU for processing.

**(8) Accelerometers.** IMD HUMS employs 32 drivetrain and gearbox accelerometers, six engine accelerometers, and four track and balance accelerometers. Signals from the accelerometers are fed into the MPU via the RDC as raw data signals where they will be digitized and processed through Fast Fourier Transforms (FFT) and other diagnostics techniques. The results from these checks will normally be discarded. However, the raw data will be saved if prompted by the Pilot or if a fault is suspected.

**(9) Tachometers.** IMD HUMS employs three tachometers, one each for the tail gearbox, main gearbox, and main rotor. Signals from the accelerometers are fed into the MPU via the RDC as raw data signals where they will be digitized and processed through FFTs and other diagnostics techniques. The results from these checks will normally be discarded. However, the raw data will be saved if prompted by the Pilot or if a fault is suspected.

**b. Ground-Based System.** The GBS is a software module consisting of a Master Software Disk, Flight Software Data Disk, and a Configuration Data Disk that resides within an NALCOMIS Optimized ground station. The GBS also includes a Main Processing Unit Loader Verifier (MPULV) that is used to transfer data to the PCMCIA prior to flight and to load data collected during flight from the PCMCIA memory card into the GBS.

## 2. Physical Description

ITEM NOMENCLATURE	HEIGHT	DEPTH	WIDTH	WEIGHT
CDU	3.18 inches (in.)	8.93 in.	3.37 in.	4.7 pounds (lbs.)
DTU	1.50 in.	6.50 in.	5.75 in.	2.1 lbs.
RDC	2.30 in.	7.70 in.	6.72 in.	3.2 lbs.
MPU	7.60 in.	12.60 in.	4.90 in.	15.5 lbs.
Optical Rotor Blade Tracker	5.10 in.	5.10 in.	3.60 in.	1.1 lbs.
Junction Box	The size and weight of Junction Boxes vary depending on the application.			
RCC	100 millimeter (mm)	95 mm	107 mm	620 grams (g)
Drive Train Accelerometer	0.56 in.	0.55 in.	0.75 in.	26 g
Engine High Temperature Accelerometer	25 mm	356 mm	15 mm	8 ounces (oz.)
Engine Accelerometer	1.36 in.	1.81 in.	1.50 in.	8 oz.
Uniaxial Rotor Blade Accelerometer	1.40 in.	1.87 in.	1.14 in.	80 g
Biaxial Rotor Blade Accelerometer	1.40 in.	1.87 in.	1.14 in.	80 g
Triaxial Rotor Blade Accelerometer	1.14 in.	1.87 in.	1.40 in.	90 g
Tail Gearbox Tachometer	2.45 in.	2.70 in.	1.50 in.	105 g
Main Gearbox Tachometer	2.45 in.	2.70 in.	1.50 in.	105 g
Main Rotor Tachometer	2.45 in.	2.70 in.	1.50 in.	105 g
MPULV	2.00 in.	4.00 in.	6.00 in.	1.5 lbs.
PCMCIA Memory Card	5.0 mm	85.6 mm	54.0 mm	33 g

**3. New Development Introduction.** The IMD HUMS will be retrofit into existing aircraft and delivered as installed equipment on new aircraft.

**4. Significant Interfaces.** The IMD HUMS receives information from the Ground GPWS Air Data Computer, AFCS, GPS, and the BMP. Additionally, the GDS software resides on a NALCOMIS Optimized ground station. The IMD HUMS technology is generic and can be applied to other platforms.

**5. New Features, Configurations, or Material.** Not Applicable (NA)

## H. CONCEPTS

**1. Operational Concept.** The IMD HUMS OBS will be operated by Marine Corps CH-53E Rotary Wing Pilots with Military Occupational Specialty (MOS) 7566, Marine Corps CH-53E Enlisted Aircrew personnel with MOS 6173, Navy SH-60B Rotary Wing Pilots with 1311 and 1312 Designator Codes, and Navy SH-60B Aviation Warfare Systems Operators (AW) with Navy Enlisted Classification (NEC) 7873.

**2. Maintenance Concept.** The IMD HUMS maintenance concept is based on two levels of maintenance, organizational and depot, in accordance with the guidelines established in the Naval Aviation Maintenance Program (NAMP), Office of the Chief of Naval Aviation Instruction (OPNAVINST) 4790.2H.

**a. Organizational.** The IMD HUMS will be maintained at the organizational level by:

- Marine Corps CH-53E Communication/Electrical System Technicians, MOS 6323
- Marine Corps CH-53E Airframe Mechanics, MOS 6153
- Marine Corps CH-53E Aircraft Mechanics, MOS 6113
- Navy Aviation Electronics Technicians (AT), NECs 8376 or 8876
- Navy Aviation Electrician's Mates (AE)
- Navy Aviation Structural Mechanics (AM)
- Navy Aviation Machinist's Mates (AD), NECs 8378 or 8878

**(1) Preventive Maintenance.** Preventive maintenance will consist of performing a daily confidence test and scheduled maintenance tasks at prescribed calendar or operating time intervals.

**(2) Corrective Maintenance.** Corrective maintenance is built around the self-test program that automatically indicates the operational condition of the system. The self-test program fault-isolates to a defective Line Replaceable Unit (LRU). When the fault is verified, the defective LRU is removed and replaced.

**b. Intermediate.** NA

**c. Depot.** The contractor, B.F. Goodrich Aerospace, will perform repair, calibration, and overhaul of all IMD HUMS components.

**d. Interim Maintenance.** B.F. Goodrich Aerospace will perform interim maintenance support for the IMD HUMS until full Navy organic support is achieved. The Navy Support Date is To Be Determined (TBD).

**e. Life Cycle Maintenance Plan.** NA

**3. Manning Concept.** The quantitative and qualitative manpower requirements identified in current Navy Activity Manning Documents and Marine Corps Tables of Organization are sufficient to support IMD HUMS without change.

**4. Training Concept.** The IMD HUMS training program will consist of initial and follow-on training for operators and maintenance personnel. IMD HUMS follow-on maintenance training will be provided through existing courses and tracks modified with IMD HUMS data.

**a. Initial Training.** Initial training will be conducted in four phases.

- Phase One, initial training for DT personnel, has been completed.
- Phase Two will be initial training for OT personnel.
- Phase three will be initial training for cadre personnel including Fleet Readiness Squadron (FRS) instructors, Naval Aviation Maintenance Marine Unit (NAMTRA MARUNIT) Instructors, Naval Aviation Maintenance Training Group Detachment (NAMTRAGRU DET) Instructors, and Naval Air Maintenance Training Unit (NAMTRAU) Instructors.
- Phase four will be initial training for squadron personnel assigned to squadrons receiving the IMD HUMS, conducted at each squadron as part of fleet introduction.

Initial training is divided into four modules as follows:

<b>Title .....</b>	<b>H-53E/H-60 IMD HUMS Familiarization Module One</b>
<b>Description .....</b>	Module One provides a basic overview of the IMD System. This module includes instruction on the capabilities of the system, the OBS, and the GBS. The instructional setting is group-pace and Interactive Multimedia Instruction without testing.

Locations.....	<ul style="list-style-type: none"> <li>◦ HMT 302, Marine Corps Air Station (MCAS) New River</li> <li>◦ HSL-40, Naval Station (NS) Mayport</li> <li>◦ HSL-41, Naval Air Station (NAS) North Island</li> <li>◦ Fleet Squadrons</li> </ul>
Length .....	1 day
RFT dates.....	<ul style="list-style-type: none"> <li>◦ CH-53E OT personnel: September 2002</li> <li>◦ SH-60B OT personnel: January 2003</li> <li>◦ CH-53 E Cadre Personnel: TBD</li> <li>◦ SH-60B Cadre Personnel: TBD</li> <li>◦ CH-53E Squadron Personnel: TBD</li> <li>◦ SH-60B Squadron Personnel: TBD</li> </ul>
TTE/TD .....	One OBS and one GBS will be used at each training site as Technical Training Equipment (TTE). Training Devices (TD) are NA.
Prerequisites .....	OT Team Member, FRS Instructor, NAMTRA MARUNIT Instructor, NAMTRAU Instructor, or aircrew and maintenance personnel assigned to a squadron during IMD HUMS fleet introduction.
<b>Title .....</b>	<b>H-53E/H-60 IMD HUMS Familiarization Module Two</b>
Description .....	Module Two provides training to aircrew and designated maintenance personnel to initialize the system, operate selected functions during flight, and perform post-flight functions of data download and debrief. This module includes instruction on pre-flight and post-flight procedures and on selected in-flight functions. The instructional setting is group-pace and Interactive Multimedia Instruction, with "open book" testing.
Locations.....	<ul style="list-style-type: none"> <li>◦ HMT 302, MCAS New River</li> <li>◦ HSL-40, NS Mayport</li> <li>◦ HSL-41, NAS North Island</li> <li>◦ Fleet Squadrons</li> </ul>
Length .....	3 days

RFT dates.....	<ul style="list-style-type: none"> <li>◦ CH-53E OT personnel: September 2002</li> <li>◦ SH-60B OT personnel: January 2003</li> <li>◦ CH-53 E Cadre Personnel: TBD</li> <li>◦ SH-60B Cadre Personnel: TBD</li> <li>◦ CH-53E Squadron Personnel: TBD</li> <li>◦ SH-60B Squadron Personnel: TBD</li> </ul>
TTE/TD .....	One OBS and one GBS will be used at each training site as TTE.
Prerequisites .....	OT Team Member, FRS Instructor, NAMTRA MARUNIT Instructor, NAMTRAU Instructor, or aircrew and maintenance personnel assigned to a squadron during IMD HUMS fleet introduction.
<b>Title .....</b>	<b>H-53E/H-60 IMD HUMS Familiarization Module Three</b>
Description .....	Module Three provides training to designated aircrew and maintenance personnel to perform all of the OBS functions, to access the GBS, to identify and print out required reports, to assign relevant maintenance procedures, and to carry out all associated administrative procedures. This module consists of instruction covering the full onboard system and the operation of the GBS and associated maintenance functions. The instructional setting is group-pace and Interactive Multimedia Instruction, with "open book" testing.
Locations.....	<ul style="list-style-type: none"> <li>◦ HMT 302, MCAS New River</li> <li>◦ HSL-40, NS Mayport</li> <li>◦ HSL-41, NAS North Island</li> <li>◦ Fleet Squadrons</li> </ul>
Length .....	3 days
RFT dates .....	<ul style="list-style-type: none"> <li>◦ CH-53E OT personnel: September 2002</li> <li>◦ SH-60B OT personnel: January 2003</li> <li>◦ CH-53 E Cadre Personnel: TBD</li> <li>◦ SH-60B Cadre Personnel: TBD</li> <li>◦ CH-53E Squadron Personnel: TBD</li> <li>◦ SH-60B Squadron Personnel: TBD</li> </ul>
TTE/TD .....	One OBS and one GBS will be used at each training site as TTE.

Prerequisites .....	OT Team Member, FRS Instructor, NAMTRA MARUNIT Instructor, NAMTRAU Instructor, or aircrew and maintenance personnel assigned to a squadron during IMD HUMS fleet introduction.
<b>Title .....</b>	<b>H-53E/H-60 IMD HUMS Familiarization Module Four</b>
Description .....	Module Four provides training to maintenance personnel to support the IMD HUMS onboard system. This module consists of eight hours of instruction covering the full OBS and the operation of the GBS and associated maintenance functions. The instructional setting is group-pace and Interactive Multimedia Instruction, with "open book" testing.
Locations.....	<ul style="list-style-type: none"> <li>° HMT 302, MCAS New River</li> <li>° HSL-40, NS Mayport</li> <li>° HSL-41, NAS North Island</li> </ul>
Length .....	3 days
RFT dates .....	<ul style="list-style-type: none"> <li>° CH-53E OT personnel: September 2002</li> <li>° SH-60B OT personnel: January 2003</li> <li>° CH-53 E Cadre Personnel: TBD</li> <li>° SH-60B Cadre Personnel: TBD</li> <li>° CH-53E Squadron Personnel: TBD</li> <li>° SH-60B Squadron Personnel: TBD</li> </ul>
TTE/TD .....	One OBS and one GBS will be used at each training site as Technical Training Equipment.
Prerequisites .....	OT Team Member, FRS Instructor, NAMTRA MARUNIT Instructor, NAMTRAU Instructor, or aircrew and maintenance personnel assigned to a squadron during IMD HUMS fleet introduction.

**b. Follow-on Training**

**(1) Operator Training**

**Title .....** CH-53 Basic Pilot Training  
**CIN .....** MC-1 (See note)  
**Model Manager....** HMT 302  
**Description.....** This course provides the Fleet Replacement Pilot knowledge and skills including:  
    ° CH-53 and Weapons Systems Employment  
    ° Flight Training Crew Tactics and Safety  
    ° Communications and Navigation  
    ° Naval Air Training and Operational Procedure Standardization (NATOPS)  
Upon completion, the student will be able to perform as a CH-53 Pilot in a squadron environment.  
**Location .....** HMT 302, MCAS New River  
**Length.....** 131 days (No change when IMD HUMS is incorporated)  
**RFT date .....** Currently available  
The RFT date with IMD HUMS is TBD.  
**Skill identifier .....** MOS 7566  
**TTE/TD.....** ° Device 2F121, Aircrew Procedures Trainer (APT)  
° Device 2F174, Weapons System Trainer (WST)  
**Prerequisite .....** ° Q-2A-0001, Primary Flight Training  
° Q-2A-0010, Joint T-34C Intermediate Flight Training  
° Q-2A-0013, V-4 Undergraduate Flight Training-Helo  
° Q-2A-0015, Undergraduate Helicopter Pilot Training  
° Designated Marine Helicopter Pilot  
° Security Clearance - Secret

**Note:** The CH-53 Basic Pilot Training course is not listed in either the OPNAV Aviation Training Management System (OATMS) or the Catalog of Navy Training Courses (CANTRAC).

**Title .....** **CH-53 Transition Pilot Training**

CIN ..... MC-2 (See note)

Model Manager.... HMT 302

Description..... This course provides the Transition Fleet Replacement Pilot knowledge and skills including:

- CH-53 and Weapon Systems Employment
- Flight Training Crew Tactics and Safety
- Communications and Navigation
- NATOPS

Upon completion, the student will be able to perform as a CH-53 Pilot in a squadron environment.

Location ..... HMT 302, MCAS New River

Length..... 96 days (No change when IMD HUMS is incorporated)

RFT date ..... Currently available  
The RFT date with IMD HUMS is TBD.

Skill identifier ..... ◦ MOS 7564  
◦ MOS 7566

TTE/TD..... ◦ Device 2F121, APT  
◦ Device 2F174, WST

Prerequisite ..... ◦ Q-2A-0001, Primary Flight Training  
◦ Q-2A-0010, Joint T-34C Intermediate Flight Training  
◦ Q-2A-0013, V-4 Undergraduate Flight Training-Helo  
◦ Q-2A-0015, Undergraduate Helicopter Pilot Training  
◦ Designated Marine Helicopter Pilot  
◦ CH-53 Basic Pilot Training  
◦ Security Clearance - Secret

**Note:** The CH-53 Transition Pilot Training course is not listed in either the OATMS or the CANTRAC.

**Title .....** **CH-53 Conversion Pilot Training**

CIN ..... MC-3 (See Note)

Model Manager.... HMT 302

Description..... This course provides the Conversion Fleet Replacement Pilot knowledge and skills including:

- CH-53 and Weapon Systems Employment
- Flight Training Crew Tactics and Safety
- Communications and Navigation
- NATOPS

Upon completion, the student will be able to perform as a CH-53 Pilot in a squadron environment.

Location ..... HMT 302, MCAS New River

Length..... 68 days (No change when IMD HUMS is incorporated)

RFT date ..... Currently available  
The RFT date with IMD HUMS is TBD.

Skill identifier ..... ◦ MOS 7564  
◦ MOS 7566

TTE/TD..... ◦ Device 2F121, APT  
◦ Device 2F174, WST

Prerequisite ..... ◦ Q-2A-0001, Primary Flight Training  
◦ Q-2A-0010, Joint T-34C Intermediate Flight Training  
◦ Q-2A-0013, V-4 Undergraduate Flight Training - Helo  
◦ Q-2A-0015, Undergraduate Helicopter Pilot Training  
◦ Designated Marine Helicopter Pilot  
◦ CH-53 Basic Pilot Training  
◦ Security Clearance - Secret

**Note:** The CH-53 Conversion Pilot Training course is not listed in either the OATMS or the CANTRAC.

**Title .....** **CH-53 Refresher Pilot Training**

CIN ..... MC-4 (See Note)

Model Manager.... HMT 302

Description..... This course provides the Fleet Replacement Pilot refresher training in the CH-53, including:

- Weapon Systems Employment
- Flight Training Crew Tactics and Safety
- Communications and Navigation
- NATOPS

Upon completion, the student will be able to perform as a CH-53 Pilot in a squadron environment.

Location ..... HMT 302, MCAS New River

Length..... 47 days (No change when IMD HUMS is incorporated)

RFT date ..... Currently available  
The RFT date with IMD HUMS is TBD.

Skill identifier ..... ◦ MOS 7564  
◦ MOS 7566

TTE/TD..... ◦ Device 2F121, APT  
◦ Device 2F174, WST

Prerequisite ..... ◦ Q-2A-0001, Primary Flight Training  
◦ Q-2A-0010, Joint T-34C Intermediate Flight Training  
◦ Q-2A-0013, V-4 Undergraduate Flight Training-Helo  
◦ Q-2A-0015, Undergraduate Helicopter Pilot Training  
◦ Designated Marine Helicopter Pilot  
◦ CH-53 Basic Pilot Training  
◦ Security Clearance - Secret

**Note:** The CH-53 Refresher Pilot Training course is not listed in either the OATMS or the CANTRAC.

**Title .....** **CH-53E Crew Chief Training Syllabus**

CIN ..... M-601-2722

Model Manager.... HMT 302

Description..... This course provides training in the duties of a CH-53E Aircraft Crew Chief to include:

- Helicopter Maintenance
- Flight Line Procedures
- Aircraft Taxi and Servicing
- Pre-flight and Post-flight Inspections
- NATOPS

Upon completion, the student will be able to perform as a CH-53E Crew Chief in a squadron environment under limited supervision.

Location ..... HMT 302, MCAS New River

Length..... 165 days (No change when IMD HUMS is incorporated)

RFT date ..... Currently available  
The RFT date with IMD HUMS is TBD.

Skill identifier ..... MOS 6173

TTE/TD..... ◦ Device 2F121, APT  
◦ Device 2F174, WST

Prerequisite ..... C-602-9456, CH-53 Helicopter Mechanic Integrated O-Level Maintenance

**Title .....** **SH-60B Category I Fleet Replacement Pilot**

CIN ..... D/E-2C-2501

Model Manager.... HSL-40

Description..... This course provides training to the first tour SH-60B Replacement Pilot, including:

- Flight Training
- Crew Tactics and Safety
- Communications and Navigation
- NATOPS

Upon completion, the student will be able to perform as an SH-60B Pilot in a squadron environment.

Locations ..... ◦ HSL-40, NS Mayport  
◦ HSL-41, NAS North Island

Length..... 208 days (No change when IMD HUMS is incorporated)  
RFT date ..... Currently available  
The RFT date with IMD HUMS is TBD.  
Skill identifier ..... 1311  
TTE/TD            ° Device 2F135, Operational Flight Trainer (OFT)  
                     ° Device 14B51, Weapons Tactics Trainer (WTT)  
Prerequisites..... ° E-2D-0039, Survival, Evasion, Resistance, and Escape  
                     ° E-7C-0039, Basic Officer Leadership Course  
                     ° B-9E-1224, Naval Aviation Water Survival Program R-1  
                     ° Security Clearance - Secret

**Title ..... SH-60B Category II Fleet Replacement Pilot**

CIN ..... D/E-2C-2502

Model Manager.... HSL-40

Description..... This course provides training to the second tour SH-60B Pilot, including:  
                     ° Flight Training  
                     ° Armament Control  
                     ° Crew Tactics and Safety  
                     ° Communications and Navigation  
                     ° NATOPS  
Upon completion, the student will be able to perform as an SH-60B Pilot in a squadron environment.

Locations ..... ° HSL-40, NS Mayport  
                     ° HSL-41, NAS North Island

Length..... 120 days (No change when IMD HUMS is incorporated)

RFT date ..... Currently available  
The RFT date with IMD HUMS is TBD.

Skill identifier ..... 1311

TTE/TD..... ° Device 2F135, OFT  
                     ° Device 14B51, WTT

Prerequisites..... ° D/E-2C-2501, SH-60B Category I Fleet Replacement Pilot  
 ° E-2D-0039, Survival, Evasion, Resistance, and Escape  
 ° E-7C-0039, Basic Officer Leadership Course  
 ° B-9E-1224, Naval Aviation Water Survival Program R-1  
 ° Security Clearance - Secret

**Title .....** **SH-60B Category III Fleet Replacement Pilot**

CIN ..... D/E-2C-2503

Model Manager.... HSL-40

Description..... This course provides advanced training to the SH-60B Pilot, including:

- ° Flight Training
- ° Armament System Capabilities
- ° Advanced Crew Tactics and Safety
- ° Communications and Navigation
- ° NATOPS

Upon completion, the student will be able to perform as a senior SH-60B Pilot in a squadron environment.

Locations ..... ° HSL-40, NS Mayport  
 ° HSL-41, NAS North Island

Length..... 103 days (No change when IMD HUMS is incorporated)

RFT date ..... Currently available  
 The RFT date with IMD HUMS is TBD.

Skill identifier ..... ° 1311  
 ° 1312

TTE/TD..... ° Device 2F135, OFT  
 ° Device 14B51, WTT

Prerequisites..... ° D/E- 2C-2502, SH-60B Category II Fleet Replacement Pilot  
 ° E-2D-0039, Survival, Evasion, Resistance, and Escape  
 ° E-7C-0039, Basic Officer Leadership Course  
 ° B-9E-1224, Naval Aviation Water Survival Program R-1  
 ° Security Clearance - Secret

**Title .....** **SH-60B Category IV Fleet Replacement Pilot**

**CIN .....** D/E-2C-2504

**Model Manager....** HSL-40

**Description.....** This course provides SH-60B training to senior pilots, including:

- Armament System Capabilities
- Flight Training
- Advanced Crew Tactics and Safety
- Communications and Navigation
- NATOPS

Upon completion, the student will be able to perform as a senior SH-60B Pilot in a squadron environment.

**Locations .....** ◦ HSL-40, NS Mayport  
◦ HSL-41, NAS North Island

**Length.....** 85 days (No change when IMD HUMS is incorporated)

**RFT date .....** Currently available  
The RFT date with IMD HUMS is TBD.

**Skill identifier .....** ◦ 1311  
◦ 1312

**TTE/TD.....** ◦ Device 2F135, OFT  
◦ Device 14B51, WTT

**Prerequisites.....** ◦ D/E-2C-2503, SH-60B Category III Fleet Replacement Pilot  
◦ E-2D-0039, Survival, Evasion, Resistance, and Escape  
◦ E-7C-0039, Basic Officer Leadership Course  
◦ B-9E-1224, Naval Aviation Water Survival Program R-1  
◦ Security Clearance - Secret

**Title .....** **SH-60B Fleet Replacement Aircrewman Instructor Under Training**

CIN ..... D/E-050-2505

Model Manager.... HSL-40

Description..... This course provides advanced training to the SH-60B Replacement Aircrewman, including:

- SH-60B Systems Theory and Operation
- Normal and Emergency Procedures
- Advanced Crew Tactics and Safety
- Survival Equipment
- NATOPS

Upon completion, the student will be able to perform as an Instructor for SH-60B Aircrewmen in a training squadron environment under limited supervision.

Locations ..... ◦ HSL-40, NS Mayport  
◦ HSL-41, NAS North Island

Length..... 19 days (No change when IMD HUMS is incorporated)

RFT date ..... Currently available  
The RFT date with IMD HUMS is TBD.

Skill identifier ..... AW 7873

TTE/TD..... Device 2F141, OFT

Prerequisites..... ◦ E-2D-0039, Survival Evasion Resistance, and Escape  
◦ B-322-0042, Refresher Aerospace Physiology Helicopter Training  
◦ B-9E-1226, Naval Aviation Water Survival Program R-3  
◦ C-495-0413, Shipboard Aircraft Fire Fighting  
◦ Security Clearance - Secret

**Title .....** **SH-60B Category I Fleet Replacement Aircrewman Training**

CIN ..... D/E-050-2510

Model Manager.... HSL-40

Description..... This course provides training to the first tour SH-60B Replacement Aircrewman, including:

- SH-60B Systems Theory and Operation
- Normal and Emergency Procedures
- Crew Tactics and Safety
- Survival Equipment
- NATOPS

Upon completion, the student will be able to perform as a SH-60B Aircrewman in a squadron environment under limited supervision.

Locations ..... ◦ HSL-40, NS Mayport  
◦ HSL-41, NAS North Island

Length..... 185 days (No change when IMD HUMS is incorporated)

RFT date ..... Currently available  
The RFT date with IMD HUMS is TBD.

Skill identifier ..... AW 7873

TTE/TD..... Device 2F141, OFT

Prerequisites..... ◦ E-2D-0039, Survival Evasion Resistance, and Escape  
◦ B-9E-1226, Naval Aviation Water Survival Program R-3  
◦ Security Clearance - Secret  
◦ C-210-2011, Airborne Acoustic Mission Course

**Title .....** **SH-60B Category II Fleet Replacement Aircrewman Training**

CIN ..... D/E-050-2511

Model Manager.... HSL-40

Description..... This course provides training to the senior SH-60B Replacement Aircrewman, including:

- SH-60B Systems Theory and Operation
- Normal and Emergency Procedures
- Advanced Crew Tactics and Safety
- Survival Equipment
- NATOPS

Upon completion, the student will be able to perform as a senior SH-60B Aircrewman in a squadron environment under limited supervision.

Locations ..... ◦ HSL-40, NS Mayport  
◦ HSL-41, NAS North Island

Length..... 61 days (No change when IMD HUMS is incorporated)

RFT date ..... Currently available  
The RFT date with IMD HUMS is TBD.

Skill identifier ..... AW 7873

TTE/TD..... Device 2F141, OFT

Prerequisites..... ◦ E-2D-0039, Survival Evasion Resistance, and Escape  
◦ B-9E-1226, Naval Aviation Water Survival Program R-3  
◦ Security Clearance - Secret  
◦ D/E-050-2510, SH-60B Category I Fleet Replacement Aircrewman Training

### (3) Maintainer Training

Title .....	<b>CH-53E Communications/Electrical System O-Level Maintenance</b>
CIN .....	M-102-2731
Model Manager....	NAMTRA MARUNIT New River
Description.....	This course provides training for newly assigned personnel including: <ul style="list-style-type: none"><li>◦ Communications Systems, Navigation, Identification</li><li>◦ Electrical Theory of Operation and Operational Procedures</li><li>◦ Component Location and Characteristics</li><li>◦ Automatic Flight Control Systems</li><li>◦ Safety</li></ul> Upon completion, the student will be able to perform organization level maintenance on the CH-53E communications and electrical systems in a squadron environment under limited supervision.
Location .....	NAMTRA MARUNIT New River
Length.....	130 days (No change when IMD HUMS is incorporated)
RFT date .....	Currently available The RFT date with IMD HUMS is TBD.
Skill identifier .....	MOS 6323
TTE/TD.....	<ul style="list-style-type: none"><li>◦ CH-53E Composite Maintenance Trainer (CMT)</li><li>◦ CH-53E AFCS Maintenance Trainer</li><li>◦ CH-53E Communications, Navigation, and Identification (CNI) Trainer</li></ul>
Prerequisite .....	C-100-2018, Avionics Technician O-Level Class A1

**Title .....** **CH-53 Helicopter Mechanic Integrated O-Level Maintenance**

**CIN .....** M-601-2720

**Model Manager....** NAMTRA MARUNIT New River

**Description.....** This course provides the mechanical technician knowledge and skills related to the CH-53 helicopter systems, including:

- Basic Helicopter and General Safety
- Troubleshooting
- Publications
- Power Plants, Auxiliary Power Plant and Fuel Systems
- Transmission and Rotor Systems
- Flight Control System
- Blade/Pylon Fold, and Cargo Handling Systems

Upon completion, the student will be able to perform CH-53E power plants and related systems organizational level maintenance in a squadron environment under limited supervision.

**Location .....** NAMTRA MARUNIT New River

**Length.....** 86 days (No change when IMD HUMS is incorporated)

**RFT date .....** Currently available  
The RFT date with IMD HUMS is TBD.

**Skill identifier .....** MOS 6113

**TTE/TD .....** ◦ CH-53E CMT  
◦ CH-53E Fuel Systems Trainer  
◦ Auxiliary Power Plant Trainer  
◦ Rotor Head Trainer

**Prerequisite .....** C-602-9456, CH-53 Helicopter Mechanic Integrated O-Level Maintenance

**Title .....** **CH-53 Helicopter Airframe Mechanic**

CIN ..... M-602-2781

Model Manager.... NAMTRA MARUNIT New River

Description..... This course provides the CH-53 Airframes Mechanic structures, hydraulics, and related systems training, knowledge, and skills, including:

- Theory of Operation
- Troubleshooting
- Basis for Diagnosis
- Organizational Level Maintenance Procedures
- Safety

Upon completion, the student will be able to perform organizational level maintenance on the CH-53 structures, hydraulics, and related systems in a squadron environment under limited supervision.

Location ..... NAMTRA MARUNIT New River

Length..... 100 days (No change when IMD HUMS is incorporated)

RFT date ..... Currently available  
The RFT date with IMD HUMS is TBD.

Skill identifier ..... MOS 6153

TTE/TD..... ◦ CH-53E CMT  
◦ Rotor Head Trainer

Prerequisite ..... ◦ C-603-0175, Aviation Structural Mechanic (Structures and Hydraulic) Common Core Class A1  
◦ C-603-0176, Aviation Structural Mechanic (Structures and Hydraulic) O-Level Strand Class A1

**Title .....** **SH-60B LAMPS MK III System Organizational (Initial) Maintenance Technician**

CIN ..... D/E-102-0820

Model Manager.... Maintenance Training Unit (MTU) 1066 NAMTRAGRU  
DET Mayport

Description..... This track provides the first tour Aviation Electronics Technician an introduction to the SH-60B Avionics, including:

- Familiarization and Safety Precautions
- Publications
- Component Location
- System Characteristics
- Basic Testing and Servicing
- NAMP

Upon completion, the student will be able to safely perform organizational maintenance on the SH-60B avionics systems in a squadron environment under close supervision.

Locations ..... ◦ MTU 1066 NAMTRAGRU DET Mayport  
◦ MTU 1067 NAMTRAU North Island

Length..... 78 days (No change when IMD HUMS is incorporated)

RFT date ..... Currently available  
The RFT date with IMD HUMS is TBD.

Skill identifier ..... AT 8876

TTE/TD..... Avionics Maintenance Trainer (AMT)

Prerequisite ..... ◦ C-100-2020, Avionics Common Core Class A1  
◦ C-100-2018, Avionics Technician Organizational Level Class A1

**Title .....** **SH-60B LAMPS MK III Systems Organizational (Career) Maintenance Technician**

CIN ..... D/E-102-0825

Model Manager.... MTU 1066 NAMTRAGRU DET Mayport

Description..... This course provides the career Aviation Electronics Technician with sufficient knowledge of the SH-60B Avionics, including:

- Systems Analysis and Configuration
- Systems Operation
- Advanced Troubleshooting Techniques
- Safety Precautions
- Light Airborne Multi-Purpose System (LAMPS) Helicopter and Ship Integration

Upon completion, the student will be able to perform organizational maintenance on the SH-60B avionics systems in a squadron environment under limited supervision.

Locations ..... ◦ MTU 1066 NAMTRAGRU DET Mayport  
◦ MTU 1067 NAMTRAU North Island

Length..... 16 days (No change when IMD HUMS is incorporated)

RFT date ..... Currently available  
The RFT date with IMD HUMS is TBD.

Skill identifier ..... AT 8376

TTE/TD..... AMT

Prerequisite ..... ◦ C-100-2020, Avionics Common Core Class A1  
◦ C-100-2018, Avionics Technician Organizational Level Class A1

<b>Title .....</b>	<b>H-60 Power Plants and Related Systems (Initial) Organizational Maintenance</b>
CIN .....	D/E-601-0811
Model Manager....	MTU 1066 NAMTRAGRU DET Mayport
Description.....	This course provides training to the first tour Aviation Machinist's Mate, including: <ul style="list-style-type: none"> <li>◦ Component Location and Purpose</li> <li>◦ Publications</li> <li>◦ Systems Familiarization, Description, and Theory of Operation</li> <li>◦ Safety Procedures</li> <li>◦ Introduction to the NAMP</li> </ul> <p>Upon completion, the student will be able to safely perform organizational maintenance on the SH-60B power plants and related systems in a squadron environment under close supervision.</p>
Locations .....	◦ MTU 1066 NAMTRAGRU DET Mayport ◦ MTU 1067 NAMTRAU North Island
Length.....	33 days (No change when IMD HUMS is incorporated)
RFT date .....	Currently available The RFT date with IMD HUMS is TBD.
Skill identifier .....	AD 8878
TTE/TD.....	◦ Composite Maintenance Trainer ◦ Landing Gear/Wheel Brake Trainer ◦ Quick Engine Change (QEC) Maintenance Trainer ◦ Blade Inspection Maintenance (BIM) Trainer ◦ SH-60B Aircraft
Prerequisite .....	◦ C-601-2011, Aviation Machinist's Mate Common Core Class A1 ◦ C-601-2012, Aviation Machinist's Mate Fundamentals Strand Class A1

<b>Title .....</b>	<b>H-60 Power Plants and Related Systems (Career) Organizational Maintenance</b>
CIN .....	D/E-601-0813
Model Manager....	MTU 1066 NAMTRAGRU DET Mayport
Description.....	This course provides training to the career Aviation Machinist's Mate, including: <ul style="list-style-type: none"> <li>◦ Systems Publications and Configuration</li> <li>◦ Systems Operation, Testing, and Repair Procedures</li> <li>◦ Advanced Troubleshooting Techniques</li> <li>◦ Vibration Analysis and Borescoping</li> <li>◦ Safety Precautions</li> </ul> <p>Upon completion, the student will be able to perform organizational maintenance on the SH-60B power plants and related systems in a squadron environment under limited supervision.</p>
Locations .....	◦ MTU 1066 NAMTRAGRU DET Mayport ◦ MTU 1067 NAMTRAU North Island
Length.....	16 days (No change when IMD HUMS is incorporated)
RFT date .....	Currently available The RFT date with IMD HUMS is TBD.
Skill identifier .....	AD 8378
TTE/TD.....	◦ Composite Maintenance Trainer ◦ Landing Gear/Wheel Brake Trainer ◦ QEC Maintenance Trainer ◦ BIM Trainer ◦ SH-60B Aircraft
Prerequisite .....	◦ C-601-2011, Aviation Machinist's Mate Common Core Class A1 ◦ C-601-2012, Aviation Machinist's Mate Helicopter Fundamentals Strand Class A1 ◦ D/E-601-0811, H-60 Power Plants and Related Systems (Initial) Organizational Maintenance

**Title .....** **H-60 Electrical/Instruments and Automatic Flight Control Systems (Initial) Organizational Maintenance**

CIN ..... D/E-602-0851

Model Manager.... MTU 1066 NAMTRAGRU DET Mayport

Description..... This course provides training to the first tour Aviation Electrician's Mate, including:

- Component Location and Purpose
- Testing and Troubleshooting Procedures
- Publications
- Systems Familiarization, Description, and Theory Of Operation
- Safety Procedures
- Introduction to the NAMP

Upon completion, the student will be able to safely perform organizational maintenance on the SH-60B electrical/instruments and AFCS in a squadron environment under close supervision.

Locations ..... ◦ MTU 1066 NAMTRAGRU DET Mayport  
◦ MTU 1067 NAMTRAU North Island

Length..... 82 days (No change when IMD HUMS is incorporated)

RFT date ..... Currently available  
The RFT date with IMD HUMS is TBD.

Skill identifier ..... AE 8878

TTE/TD..... ◦ AMT  
◦ AFCS Maintenance Trainer  
◦ Composite Maintenance Trainer  
◦ SH-60B Aircraft

Prerequisite ..... ◦ C100-2020, Avionics Common Core Class A1  
◦ C-602-2039, Aviation Electrician's Mate Strand Class A1

**Title .....** **H-60 Electrical/Instruments and Automatic Flight Control System (Career) Organizational Maintenance**

CIN ..... D/E-602-0854

Model Manager.... MTU 1066 NAMTRAGRU DET Mayport

Description..... This course provides training to the career Aviation Electrician's Mate, including:

- Systems Publications and Configuration
- Systems Operation, Testing, and Repair Procedures
- Theoretical Troubleshooting Techniques
- Flight Control and Fuel Systems
- Safety Precautions

Upon completion, the student will be able to perform organizational maintenance on the SH-60B electrical/ instrument and AFCS in a squadron environment under limited supervision.

Locations ..... ◦ MTU 1066 NAMTRAGRU DET Mayport  
◦ MTU 1067 NAMTRAU North Island

Length..... 17 days (No change when IMD HUMS is incorporated)

RFT date ..... Currently available  
The RFT date with IMD HUMS is TBD.

Skill identifier ..... AE 8378

TTE/TD..... ◦ AMT  
◦ AFCS Maintenance Trainer  
◦ Composite Maintenance Trainer  
◦ SH-60B Aircraft

Prerequisite ..... ◦ C100-2020, Avionics Common Core Class A1  
◦ C-602-2039, Aviation Electrician's Mate Strand Class A1  
◦ D/E-602-0851, H-60 Electrical/Instruments and Automatic Flight Control Systems (Initial) Organizational Maintenance

**Title .....** **H-60 Airframes and Related Systems (Initial)  
Organizational Maintenance**

CIN ..... D/E-602-0880

Model Manager.... MTU 1066 NAMTRAGRU DET Mayport

Description..... This course provides training to the first tour Aviation Structural Mechanic, including:

- Component Location and Purpose
- Publications
- Systems Familiarization, Description, and Theory of Operation
- Troubleshooting and Safety Procedures
- Introduction to the NAMP

Upon completion, the student will be able to safely perform organizational maintenance on the SH-60B airframes and related systems in a squadron environment under close supervision.

Locations ..... ◦ MTU 1066 NAMTRAGRU DET Mayport  
◦ MTU 1067 NAMTRAU North Island

Length..... 36 days (No change when IMD HUMS is incorporated)

RFT date ..... Currently available  
The RFT date with IMD HUMS is TBD.

Skill identifier ..... AM 8878

TTE/TD..... ◦ Composite Maintenance Trainer  
◦ Landing Gear Flotation Systems Maintenance Trainer  
◦ Recovery Assist Securing and Traversing (RAST)/Tail Hoist Systems Maintenance Trainer  
◦ SH-60B Aircraft

Prerequisite ..... C-603-0176, Aviation Structural Mechanic (Structures and Hydraulics) Class A1

**Title .....** **H-60 Airframes and Related Systems (Career)  
Organizational Maintenance**

CIN ..... D/E-602-0882

Model Manager.... MTU 1066 NAMTRAGRU DET Mayport

Description..... This course provides training to the career Aviation Structural Mechanic, including:

- Systems Publications and Configuration
- Systems Operation, Testing, and Repair Procedures
- Theoretical Troubleshooting Techniques
- Vibration Analysis and Landing Gear
- Safety Precautions

Upon completion, the student will be able to perform organizational maintenance on the SH-60B airframes and related systems in a squadron environment under limited supervision.

Locations ..... ◦ MTU 1066 NAMTRAGRU DET Mayport  
◦ MTU 1067 NAMTRAU North Island

Length..... 15 days (No change when IMD HUMS is incorporated)

RFT date ..... Currently available  
The RFT date with IMD HUMS is TBD.

Skill identifier ..... AM 8378

TTE/TD..... ◦ Composite Maintenance Trainer  
◦ Landing Gear Flotation Systems Maintenance Trainer  
◦ RAST Tail Hoist Systems Maintenance Trainer  
◦ SH-60B Aircraft

Prerequisite ..... ◦ C-603-0175, Aviation Structural Mechanic (Structures and Hydraulics) Class A1  
◦ D/E-602-0880, H-60 Airframes and Related Systems (Initial) Organizational Maintenance

**c. Student Profiles**

<b>SKILL IDENTIFIER</b>	<b>PREREQUISITE SKILL AND KNOWLEDGE REQUIREMENTS</b>
1311, 1312	<ul style="list-style-type: none"> <li>◦ E-2D-0039, Survival, Evasion, Resistance, and Escape</li> <li>◦ E-7C-0039, Basic Officer Leadership Course</li> <li>◦ B-9E-1224, Naval Aviation Water Survival Program R-1</li> <li>◦ Security Clearance - Secret</li> </ul>
AD 8378	<ul style="list-style-type: none"> <li>◦ C-601-2011, Aviation Machinist's Mate Common Core Class A1</li> <li>◦ C-601-2012, Aviation Machinist's Mate Helicopter Fundamentals Strand Class A1</li> <li>◦ D/E-601-0811, H-60 Power Plants and Related Systems (Initial) Organizational Maintenance</li> </ul>
AD 8878	<ul style="list-style-type: none"> <li>◦ C-601-2011, Aviation Machinist's Mate Common Core Class A1</li> <li>◦ C-601-2012, Aviation Machinist's Mate Helicopter Fundamentals Strand Class A1</li> </ul>
AE 8378	<ul style="list-style-type: none"> <li>◦ C-100-2020, Avionics Common Core Class A1</li> <li>◦ C-602-2039, Aviation Electrician's Mate Strand Class A1</li> <li>◦ D/E-602-0851, H-60 Electrical/Instrument and Automatic Flight Control System (Initial) Organizational Maintenance</li> </ul>
AE 8878	<ul style="list-style-type: none"> <li>◦ C-100-2020, Avionics Common Core Class A1</li> <li>◦ C-602-2039, Aviation Electrician's Mate Strand Class A1</li> </ul>
AM 8378	<ul style="list-style-type: none"> <li>◦ C-603-0175, Aviation Structural Mechanic (Structures and Hydraulics) Class A1</li> <li>◦ D/E-602-0880, H-60 Airframes and Related Systems (Initial) Organizational Maintenance</li> </ul>
AM 8878	<ul style="list-style-type: none"> <li>◦ C-603-0175, Aviation Structural Mechanic (Structures and Hydraulics) Class A1</li> </ul>
AT 8376	<ul style="list-style-type: none"> <li>◦ C-100-2020, Avionics Common Core Class A1</li> <li>◦ C-100-2018, Avionics Technician Organizational Level Class A1</li> <li>◦ D/E-102-0820, SH-60B LAMPS MK III System Organizational (Initial) Maintenance Technician</li> </ul>
AT 8876	<ul style="list-style-type: none"> <li>◦ C-100-2020, Avionics Common Core Class A1</li> <li>◦ C-100-2018, Avionics Technician Organizational Level Class A1</li> </ul>

SKILL IDENTIFIER	PREREQUISITE SKILL AND KNOWLEDGE REQUIREMENTS
AW 7873	<ul style="list-style-type: none"> <li>◦ E-2D-0039, Survival Evasion Resistance, and Escape</li> <li>◦ B-322-0042, Refresher Aerospace Physiology Helicopter Training</li> <li>◦ B-9E-1226, Naval Aviation Water Survival Program R-3</li> <li>◦ C-495-0413, Shipboard Aircraft Fire Fighting</li> <li>◦ Security Clearance – Secret</li> </ul>
MOS 6173	<ul style="list-style-type: none"> <li>◦ C-602-9456, CH-53 Helicopter Mechanic Integrated O-Level Maintenance</li> <li>◦ Q-050-1500, Naval Aircrewman Candidate School</li> </ul>
MOS 6113	<ul style="list-style-type: none"> <li>◦ C-600-3601, Command Indoctrination</li> <li>◦ C-602-9456, CH-53 Helicopter Mechanic Integrated O-Level Maintenance</li> </ul>
MOS 6153	<ul style="list-style-type: none"> <li>◦ C-600-3601, Command Indoctrination</li> <li>◦ C-603-9444, CH-53 Airframes Integrated O-Level Maintenance</li> <li>◦ C-603-0175, Aviation Structural Mechanic (Structures and Hydraulics) Common Core Class A1</li> </ul>
MOS 6323	<ul style="list-style-type: none"> <li>◦ C-100-2018, Avionics Technician O-Level Class A1</li> <li>◦ C-102-9945, CH-53 A/D/E Communications/Navigation Systems Integrated O-Level Maintenance</li> <li>◦ C-602-9451, CH-53E Dual Digital Automatic Flight Control System Integrated O-Level Maintenance</li> <li>◦ C-602-9441, CH-53E Electrical Systems Integrated O-Level Maintenance</li> <li>◦ C-600-3601, Command Indoctrination</li> </ul>
MOS 7566	<ul style="list-style-type: none"> <li>◦ Q-2A-0001, Primary Flight Training</li> <li>◦ Q-2A-0010, Joint T-34C Intermediate Flight Training</li> <li>◦ Q-2A-0013, V-4 Undergraduate Flight Training-Helo</li> </ul>

**d. Training Pipelines.** CH-53E and SH-60B Pilot and Aircrewman pipelines are established. Organizational level maintenance training tracks are established and will be revised to incorporate the IMD HUMS. No additional training tracks are required.

## I. ONBOARD (IN-SERVICE) TRAINING

**1. Proficiency or Other Training Organic to the New Development - Aviation Maintenance Training Continuum System.** All current SH-60B organizational level maintenance courses have been integrated into Computer-Based Training with its basic elements

of Computer-Managed Instruction, Computer-Aided Instruction, Interactive Courseware, and is part of the Aviation Maintenance Training Continuum System (AMTCS).

**2. Personnel Qualification Standards. NA**

**3. Other Onboard or In-Service Training Packages.** Marine Corps onboard training is based on the current series of MCO P4790.12, Individual Training Standards System and Maintenance Training Management and Evaluation Program (MATMEP). This program is designed to meet Marine Corps, as well as Navy OPNAVINST 4790.2 series, maintenance training requirements. It is a performance-based, standardized, level-progressive, documentable, training management and evaluation program. It identifies and prioritizes task inventories by MOS through a front-end analysis process that identifies task, skill, and knowledge requirements of each MOS. (MATMEP is planned to be replaced by AMTCS.)

**J. LOGISTICS SUPPORT**

**1. Manufacturer and Contract Numbers**

<b>CONTRACT NUMBER</b>	<b>MANUFACTURER</b>	<b>ADDRESS</b>
N00019-97-H-0152	B.F. Goodrich Aerospace	100 Panton Road Vergennes, VT 05491

**2. Program Documentation.** The following documentation supports the IMD HUMS program:

- Mission Need Statement for the IMD System, serial number M0-53-88-94, dated June 1994.
- CH-53E IMD HUMS Project Test Plan, CH-53E-T-1-99, dated June 1999.
- SH-60B IMD HUMS Project Test Plan, SH-60B-T-4-99, dated June 1999.
- Draft Acquisition Logistics Support Plan (ALSP) for the H-53 and H-60 IMD HUMS, dated May 2000.
- Operational Requirements Document (ORD) for the IMDS, Serial Number 560-88-00, approved May 2000.
- Draft SH-60B IMD User’s Logistics Support Summary (ULSS), dated November 2001.
- Draft CH-53E IMD ULSS, dated August 2002.
- Acquisition Decision Memorandum, Program Executive Office Air (PEO(A)) letter, PEO(A)/001-02, dated January 2002.
- Test And Evaluation Master Plan (TEMP), Plan Number 1619, dated May 2002

**3. Technical Data Plan.** Technical publications such as maintenance manuals, Illustrated Parts Breakdowns (IPB), NATOPS manuals and checklists, and Maintenance Requirements Cards (MRC) will be produced, distributed, and supported in an Integrated Electronic Technical Manuals (IETM) format, including software and hardware support where required. The management of technical manuals is under the cognizance of the Naval Air Technical Data and Engineering Service Command. B.F. Goodrich will supply all required technical documentation for support of the CH-53E and SH-60B IMD HUMS program. Technical manual validation and verification will be conducted at MCAS New River, NAS North Island, and NAWCAD Patuxent River. The dates for validation and verification of technical publications are TBD. Refer to element IV.B.3 for an overview of technical publications that require revision to include IMD HUMS data.

**4. Test Sets, Tools, and Test Equipment.** A special tool kit is required to support maintenance of the CH-53E IMD HUMS. The special tool kit consists of an optical scanner, jumper cables, test information cards, two Allen wrenches, and eight templates. Two items have been identified to support maintenance of the IMD HUMS installed in SH-60B Aircraft. These items are a high-speed blade balancing kit and a special tool kit consisting of templates, jumper cables, optical tracker, test information cards, and an Allen wrench. Additional support equipment requirements may be identified as DT and OT continue.

**5. Repair Parts.** Repair parts to support IMD HUMS maintenance will be under the control of the Navy Inventory Control Point Mechanicsburg, Pennsylvania. Prior to the Material Support Date (MSD), B.F. Goodrich will provide interim supply support by positioning a spares package at each operating site. The MSD is TBD.

#### **6. Human Systems Integration. NA**

### **K. SCHEDULES**

#### **1. Installation and Delivery Schedules**

**a. CH-53E IMD HUMS.** Installation and delivery schedule information was extracted from the draft CH-53E IMD ULSS, dated August 2002. Installation of the IMD system aboard CH-53E aircraft will be completed in two phases.

**(1) Phase I.** Five prototype IMD HUMS were delivered to HMT 302 in Fiscal Year (FY) 01. Three of the IMD HUMS were installed in HMT 302 aircraft in FY02. The two remaining IMD HUMS will be used as spares for DT and OT. Additionally, 11 LRIP IMD HUMS were delivered to HMT 302 in FY02.

<b>PHASE I CH-53E IMD HUMS DELIVERY AND INSTALLATION SCHEDULE</b>				
<b>ACTIVITY</b>	<b>FY99</b>	<b>FY00</b>	<b>FY01</b>	<b>FY02</b>
Patuxent River Prototype (Delivered/Installed)	1/1	0/0	0/0	0/0
HMT 302 Prototype (Delivered/Installed)	0/0	0/0	5/0	0/3
HMT 302 LRIP (Delivered/Installed)	0/0	0/0	0/0	11/11

**(2) Phase II.** Phase II installation will be accomplished using production assets under IMD Technical Directive Airframes Change-519. B.F. Goodrich has been contracted to conduct three IMD HUMS installations for CH-53E utilizing a field modification team. Blue-Grass Army Depot Lexington, Kentucky, will be the installers for LRIP and production aircraft. Installers will utilize the government provided hangar space and will be responsible for the physical installation and integration of IMD HUMS equipment into the aircraft. B.F. Goodrich will provide engineering and logistics support during installation.

<b>FY</b>	<b>PFY</b>	<b>02</b>	<b>03</b>	<b>04</b>	<b>05</b>	<b>06</b>	<b>07</b>	<b>08</b>	<b>09</b>	<b>10</b>
Procured	20	2	11	16	18	22	25	25	15	0
Delivered	0	10	12	11	16	18	22	25	25	15
Installed	0	10	12	11	16	18	22	25	25	15

**b. SH-60B IMD HUMS.** Installation and delivery schedule information was extracted from the SH-60B IMD ULSS, dated November 2001. Installation of the IMD system aboard SH-60B aircraft will be completed in two phases.

**(1) Phase I.** Five prototype IMD HUMS were delivered to HSL-41 in FY01. Three of the IMD HUMS were installed in HSL-41 aircraft in FY02. The two remaining IMD HUMS will be used as spares for DT and OT. Additionally, 11 LRIP IMD HUMS will be delivered to HSL-41 in FY02.

<b>PHASE I SH-60B IMD HUMS DELIVERY AND INSTALLATION SCHEDULE</b>				
<b>ACTIVITY</b>	<b>FY99</b>	<b>FY00</b>	<b>FY01</b>	<b>FY02</b>
Patuxent River Prototype (Delivered/Installed)	1/1	0/0	0/0	0/0
HSL-41 Prototype (Delivered/Installed)	0/0	0/0	5/0	0/3
HSL-41 LRIP (Delivered/Installed)	0/0	0/0	0/0	11/11

**(2) Phase II.** Phase II installation will be accomplished using production assets under IMD Technical Directive AFC/AVC-IMD-001. B.F. Goodrich has been contracted to conduct IMD HUMS installation for SH-60B utilizing a field modification team. B.F. Goodrich will utilize the government provided hangar space and will be responsible for the physical installation and integration of IMD HUMS equipment into the aircraft. B.F. Goodrich will provide engineering and logistics support during installation.

<b>FY</b>	<b>PFY</b>	<b>02</b>	<b>03</b>	<b>04</b>	<b>05</b>	<b>06</b>	<b>07</b>	<b>08</b>	<b>09</b>	<b>10</b>
Procured	20	2	11	16	18	22	25	25	15	0
Delivered	0	10	12	11	16	18	22	25	25	15
Installed	0	10	12	11	16	18	22	25	25	15

**2. Ready For Operational Use Schedule.** The IMD HUMS will be ready for operational use upon completion of installation.

**3. Time Required to Install at Operational Sites.** The IMD HUMS requires three months for installation.

**4. Foreign Military Sales and Other Source Delivery Schedule.** NA

**5. Training Device and Technical Training Equipment Delivery Schedule.** All TDs required to support CH-53E and SH-60B operator and maintainer training are in place. However, these TDs will require modification in the form of IMD HUMS installation. A schedule for installation of the IMD HUMS in TDs is TBD. Refer to element IV.A.2 for an overview of the TDs that require modification. TTE required to support IMD HUMS training is identified in element IV.A.1. A delivery schedule for the IMD HUMS TTE is TBD.

**L. GOVERNMENT-FURNISHED EQUIPMENT AND CONTRACTOR-FURNISHED EQUIPMENT TRAINING REQUIREMENTS. NA**

**M. RELATED NTSPs AND OTHER APPLICABLE DOCUMENTS**

<b>DOCUMENT OR NTSP TITLE</b>	<b>DOCUMENT OR NTSP NUMBER</b>	<b>PDA CODE</b>	<b>STATUS</b>
ALSP for the IMD HUMS	Not assigned	PMA261 PMA299	Draft May 00
ORD for IMD HUMS	560-88-00	PMA261 AIR 3.1.2E	Approved May 00
TEMP for the IMD HUMS	1619	PMA261 PMA 299	May 02
Mission Needs Statement for the IMD system	53-88-94	CNO	Jun 94
CH-53E IMD HUMS Project Test Plan	CH-53E-T-1-99	PMA261	Jun 99
SH-60B IMD HUMS Project Test Plan	SH-60B-T-4-99	PMA299	Jun 99
ULSS for the H-53 IMD	Not Assigned	PMA261	Draft Aug 02
ULSS for the H-60 IMD	Not assigned	PMA299	Draft Nov 01
Acquisition Decision Memorandum	PEO(A)/001-02	PEO(A)	Jan 02
NTSP for the CH-53E Aircraft	A-50-7604G/A	PMA261	Approved Mar 01
NTSP for the Light Airborne Multipurpose System	A-50-7702C/D	PMA299	Draft Aug 01

## PART II - BILLET AND PERSONNEL REQUIREMENTS

The following elements are not affected by the IMD HUMS and, therefore, are not included in Part II of this NTSP:

### II.A. Billet Requirements

- II.A.1.a. Operational and Fleet Support Activity Activation Schedule
- II.A.1.b. Billets Required for Operational and Fleet Support Activities
- II.A.1.c. Total Billets Required for Operational and Fleet Support Activities
- II.A.2.a. Operational and Fleet Support Activity Deactivation Schedule
- II.A.2.b. Billets to be Deleted in Operational and Fleet Support Activities
- II.A.2.c. Total Billets to be Deleted in Operational and Fleet Support Activities
- II.A.3. Training Activities Instructor and Support Billet Requirements
- II.A.4. Chargeable Student Billet Requirements
- II.A.5. Annual Incremental and Cumulative Billets

### II.B. Personnel Requirements

- II.B.1. Annual Training Input Requirements

**Note:** The IMD HUMS represents only a very small portion of the overall CH-53E and SH-60B operator and maintainer workload. The introduction of IMD HUMS will have no effect on any existing Operational Activity Requirements, Fleet Support Activity Requirements, Billet Requirements, Training Activity Instructor Requirements, Chargeable Student Billet Requirements, or Annual Training Input Requirements. No Operational Activities or Fleet Support Activities will be deactivated or any billets added or deleted as a result of the IMD HUMS. The quantitative and qualitative manpower requirements identified in current Navy Activity Manpower Documents and Marine Corps Tables of Organization are sufficient to support IMD HUMS without change. Billet and Personnel Requirements are addressed in detail in the CH-53E NTSP, A-50-7604G/A, dated February 2001 and the Light Airborne Multi-Purpose System (SH-60B) NTSP, A-50-7702C/D, dated August 2001 and therefore, will not be duplicated in this NTSP.

## PART III - TRAINING REQUIREMENTS

The following elements are not affected by the IMD HUMS and, therefore, are not included in Part III of this NTSP:

### III.A.2. Follow-on Training

#### III.A.2.a. Existing Courses

#### III.A.2.b. Planned Courses

#### III.A.2.c. Unique Courses

### III.A.3. Existing Training Phased Out

**Note:** The IMD HUMS represents only a very small portion of the overall CH-53E and SH-60B operator and maintainer training requirements. Initial training requirements associated with the IMD HUMS are identified in element III.A.1 of this NTSP. No new follow-on courses will be developed to support the IMD HUMS and no existing training will be phased out as a result of the IMD HUMS introduction. Existing follow-on operator and maintainer training courses will have IMD HUMS information incorporated, as applicable, with no projected change in course lengths. The only change to existing follow-on courses will be to individual lesson content. Follow-on operator and maintainer training requirements are addressed in detail in the CH-53E NTSP, A-50-7604G/A, dated February 2001 and the Light Airborne Multi-Purpose System (SH-60B) NTSP, A-50-7702C/D, dated August 2001 and therefore, will not be duplicated in this NTSP.

**PART III - TRAINING REQUIREMENTS**

**III.A.1. INITIAL TRAINING**

**Note:** Many factors concerning initial training are TBD. When this information becomes available, it will be included in updates to this NTSP.

**COURSE TITLE:** Initial Training for CH-53E OT Personnel  
**COURSE DEVELOPER:** NAVAIR  
**COURSE INSTRUCTOR:** Contractor  
**COURSE LENGTH:** 12 days  
**ACTIVITY DESTINATION:** COMOPTEVFOR, HMT 302, NAWCAD Patuxent River

LOCATION	UIC	DATE BEGIN	STUDENTS		CIV	
			OFF	ENL		
MCAS New River	55203	Sep 02	10	10	5	INPUT
			0.33	0.33		AOB
			0	0		CHARGEABLE

**COURSE TITLE:** Initial Training for SH-60B OT Personnel  
**COURSE DEVELOPER:** NAVAIR  
**COURSE INSTRUCTOR:** Contractor  
**COURSE LENGTH:** 12 days  
**ACTIVITY DESTINATION:** COMOPTEVFOR, HMT 302, HSL 41, NAWCAD Patuxent River

LOCATION	UIC	DATE BEGIN	STUDENTS		CIV	
			OFF	ENL		
NAS North Island	55138	Jan 03	TBD	TBD	TBD	INPUT
			0	0		AOB
			0	0		CHARGEABLE

**COURSE TITLE:** Initial Training for CH-53E Cadre Personnel  
**COURSE DEVELOPER:** NAVAIR  
**COURSE INSTRUCTOR:** Contractor  
**COURSE LENGTH:** 12 days  
**ACTIVITY DESTINATION:** HMT 302

LOCATION	UIC	DATE BEGIN	STUDENTS		CIV	
			OFF	ENL		
MCAS New River	55203	TBD	TBD	TBD	TBD	INPUT
			0	0		AOB
			0	0		CHARGEABLE

**III.A.1. INITIAL TRAINING**

**COURSE TITLE:** Initial Training for SH-60B Cadre Personnel  
**COURSE DEVELOPER:** NAVAIR  
**COURSE INSTRUCTOR:** Contractor  
**COURSE LENGTH:** 12 days  
**ACTIVITY DESTINATION:** HSL 40 FRS, HSL 41 FRS, MTU 1066 NAMTRAGRU DET Mayport, MTU 1067 NAMTRAU North Island

LOCATION	UIC	DATE BEGIN	STUDENTS		CIV	
			OFF	ENL		
NAS North Island	55138	TBD	TBD	TBD	TBD	INPUT
			0	0		AOB
			0	0		CHARGEABLE

**COURSE TITLE:** Initial Training for CH-53E Squadron Personnel  
**COURSE DEVELOPER:** NAVAIR  
**COURSE INSTRUCTOR:** Contractor  
**COURSE LENGTH:** 12 days  
**ACTIVITY DESTINATION:** CH-53E Squadron

LOCATION	UIC	DATE BEGIN	STUDENTS		CIV	
			OFF	ENL		
CH-53E Squadrons (See note below)	00000	TBD	TBD	TBD	TBD	INPUT
			0	0		AOB
			0	0		CHARGEABLE

**COURSE TITLE:** Initial Training for SH-60B Squadron Personnel  
**COURSE DEVELOPER:** NAVAIR  
**COURSE INSTRUCTOR:** Contractor  
**COURSE LENGTH:** 12 days  
**ACTIVITY DESTINATION:** SH-60B Squadron

LOCATION	UIC	DATE BEGIN	STUDENTS		CIV	
			OFF	ENL		
SH-60B Squadrons (See note below)	00000	TBD	TBD	TBD	TBD	INPUT
			0	0		AOB
			0	0		CHARGEABLE

**Note.** Initial training for CH-53 and SH-60B squadron personnel will be conducted at each activity in conjunction with fleet introduction.

## PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS

The following elements are not affected by the IMD HUMS and, therefore, are not included in Part IV of this NTSP:

### IV.C. Facility Requirements

IV.C.1. Facility Requirements Summary (Space/Support) by Activity

IV.C.2. Facility Requirements Detailed by Activity and Course

IV.C.3. Facility Project Summary by Program

**Note:** The IMD HUMS will not delete any existing training hardware or courseware requirements and will not generate any additional facility requirements. The IMD HUMS represents only a very small portion of the overall CH-53E and SH-60B Training Logistics Support Requirements. Training Logistics Support Requirements are addressed in detail in the CH-53E NTSP, A-50-7604G/A, dated February 2001 and the Light Airborne Multi-Purpose System (SH-60B) NTSP, A-50-7702C/D, dated August 2001 and, therefore, only additions to existing training hardware and courseware requirements, created as a result of the introduction of the IMD HUMS, will be addressed in this NTSP.

**IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE**

**CIN, COURSE TITLE:** C-102-9945, CH-53A/D/E Communication/Navigation/Identification/Electronic Countermeasures Systems  
(Track M-102-2731)

**TRAINING ACTIVITY:** NAMTRA MARUNIT

**LOCATION, UIC:** MCAS New River, 31493

<b>ITEM NO.</b>	<b>EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>GFE CFE</b>	<b>STATUS</b>
-----------------	--	-----------------	------------------	----------------	---------------

**TTE**

010	IMD HUMS OBS Components (Individual Components are TBD)	1	TBD	CFE	Pending
-----	---	---	-----	-----	---------

011	IMD HUMS GBS Software	1	TBD	CFE	Pending
-----	-----------------------	---	-----	-----	---------

**ST**

001	CH-53E IMD HUMS Special Tool Kit	1	TBD	CFE	Pending
-----	----------------------------------	---	-----	-----	---------

**CIN, COURSE TITLE:** C-602-9441, CH-53E Electrical Systems Integrated Organizational Maintenance (Track M-102-2731)

**TRAINING ACTIVITY:** NAMTRA MARUNIT

**LOCATION, UIC:** MCAS New River, 31493

<b>ITEM NO.</b>	<b>EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>GFE CFE</b>	<b>STATUS</b>
-----------------	--	-----------------	------------------	----------------	---------------

**TTE**

010	IMD HUMS OBS Components (Individual Components are TBD)	1	TBD	CFE	Pending
-----	---	---	-----	-----	---------

011	IMD HUMS GBS Software	1	TBD	CFE	Pending
-----	-----------------------	---	-----	-----	---------

**ST**

001	CH-53E IMD HUMS Special Tool Kit	1	TBD	CFE	Pending
-----	----------------------------------	---	-----	-----	---------

**CIN, COURSE TITLE:** C-602-9456, CH-53E Helicopter Mechanic Organizational Maintenance (Track M-601-2720)

**TRAINING ACTIVITY:** NAMTRA MARUNIT

**LOCATION, UIC:** MCAS New River, 31493

<b>ITEM NO.</b>	<b>EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>GFE CFE</b>	<b>STATUS</b>
-----------------	--	-----------------	------------------	----------------	---------------

**TTE**

010	IMD HUMS OBS Components (Individual Components are TBD)	1	TBD	CFE	Pending
-----	---	---	-----	-----	---------

011	IMD HUMS GBS Software	1	TBD	CFE	Pending
-----	-----------------------	---	-----	-----	---------

**ST**

001	CH-53E IMD HUMS Special Tool Kit	1	TBD	CFE	Pending
-----	----------------------------------	---	-----	-----	---------

**IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE**

**CIN, COURSE TITLE:** C-603-9444, CH-53E Airframes Integrated Organizational Maintenance (Track M-602-2781)

**TRAINING ACTIVITY:** NAMTRA MARUNIT

**LOCATION, UIC:** MCAS New River, 31493

<b>ITEM NO.</b>	<b>EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>GFE CFE</b>	<b>STATUS</b>
-----------------	--	-----------------	------------------	----------------	---------------

010	IMD HUMS OBS Components (Individual Components are TBD)	1	TBD	CFE	Pending
-----	---	---	-----	-----	---------

011	IMD HUMS GBS Software	1	TBD	CFE	Pending
-----	-----------------------	---	-----	-----	---------

**ST**

001	CH-53E IMD HUMS Special Tool Kit	1	TBD	CFE	Pending
-----	----------------------------------	---	-----	-----	---------

**CIN, COURSE TITLE:** C-601-9407, H-60 Power Plants and Related Systems (Career) Organizational Maintenance (Track D-601-0813)

**TRAINING ACTIVITY:** MTU 1066 NAMTRAGRU DET

**LOCATION, UIC:** NS Mayport, 66069

<b>ITEM NO.</b>	<b>EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>GFE CFE</b>	<b>STATUS</b>
-----------------	--	-----------------	------------------	----------------	---------------

**TTE**

010	IMD HUMS OBS Components (Individual Components are TBD)	1	TBD	CFE	Pending
-----	---	---	-----	-----	---------

011	IMD HUMS GBS Software	1	TBD	CFE	Pending
-----	-----------------------	---	-----	-----	---------

**ST**

015	High Speed Blade Balancing Kit	1	TBD	CFE	Pending
-----	--------------------------------	---	-----	-----	---------

**CIN, COURSE TITLE:** C-601-9407, H-60 Power Plants and Related Systems (Career) Organizational Maintenance (Track E-601-0813)

**TRAINING ACTIVITY:** MTU 1067 NAMTRAU

**LOCATION, UIC:** NAS North Island, 66065

<b>ITEM NO.</b>	<b>EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>GFE CFE</b>	<b>STATUS</b>
-----------------	--	-----------------	------------------	----------------	---------------

**TTE**

010	IMD HUMS OBS Components (Individual Components are TBD)	1	TBD	CFE	Pending
-----	---	---	-----	-----	---------

011	IMD HUMS GBS Software	1	TBD	CFE	Pending
-----	-----------------------	---	-----	-----	---------

**ST**

015	High Speed Blade Balancing Kit	1	TBD	CFE	Pending
-----	--------------------------------	---	-----	-----	---------

**IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE**

**CIN, COURSE TITLE:** C-102-9409, SH-60B LAMPS MK III Weapon System Technician (Career) Organizational Maintenance  
(Track D-102-0825)

**TRAINING ACTIVITY:** MTU 1066 NAMTRAGRU DET

**LOCATION, UIC:** NS Mayport, 66069

<b>ITEM NO.</b>	<b>EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>GFE CFE</b>	<b>STATUS</b>
-----------------	--	-----------------	------------------	----------------	---------------

**TTE**

010	IMD HUMS OBS Components (Individual Components are TBD)	1	TBD	CFE	Pending
-----	---	---	-----	-----	---------

011	IMD HUMS GBS Software	1	TBD	CFE	Pending
-----	-----------------------	---	-----	-----	---------

**ST**

002	SH-60B IMD HUMS Special Tool Kit	1	TBD	CFE	Pending
-----	----------------------------------	---	-----	-----	---------

**CIN, COURSE TITLE:** C-102-9409, SH-60B LAMPS MK III Weapon System Technician (Career) Organizational Maintenance  
(Track E-102-0825)

**TRAINING ACTIVITY:** MTU 1067 NAMTRAU

**LOCATION, UIC:** NAS North Island, 66065

<b>ITEM NO.</b>	<b>EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>GFE CFE</b>	<b>STATUS</b>
-----------------	--	-----------------	------------------	----------------	---------------

**TTE**

010	IMD HUMS OBS Components (Individual Components are TBD)	1	TBD	CFE	Pending
-----	---	---	-----	-----	---------

011	IMD HUMS GBS Software	1	TBD	CFE	Pending
-----	-----------------------	---	-----	-----	---------

**ST**

002	SH-60B IMD HUMS Special Tool Kit	1	TBD	CFE	Pending
-----	----------------------------------	---	-----	-----	---------

**CIN, COURSE TITLE:** C-602-9407, H-60 Electrical and Automatic Flight Control System (Career) Organizational Maintenance  
(Track D-602-0854)

**TRAINING ACTIVITY:** MTU 1066 NAMTRAGRU DET

**LOCATION, UIC:** NS Mayport, 66069

**TTE**

010	IMD HUMS OBS Components (Individual Components are TBD)	1	TBD	CFE	Pending
-----	---	---	-----	-----	---------

011	IMD HUMS GBS Software	1	TBD	CFE	Pending
-----	-----------------------	---	-----	-----	---------

**ST**

002	SH-60B IMD HUMS Special Tool Kit	1	TBD	CFE	Pending
-----	----------------------------------	---	-----	-----	---------

**IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE**

**CIN, COURSE TITLE:** C-602-9407, H-60 Electrical and Automatic Flight Control System (Career) Organizational Maintenance  
(Track E-602-0854)

**TRAINING ACTIVITY:** MTU 1067 NAMTRAU

**LOCATION, UIC:** NAS North Island, 66065

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQD	DATE REQD	GFE CFE	STATUS
----------	---	----------	-----------	---------	--------

**TTE**

010	IMD HUMS OBS Components (Individual Components are TBD)	1	TBD	CFE	Pending
-----	---	---	-----	-----	---------

011	IMD HUMS GBS Software	1	TBD	CFE	Pending
-----	-----------------------	---	-----	-----	---------

**ST**

002	SH-60B IMD HUMS Special Tool Kit	1	TBD	CFE	Pending
-----	----------------------------------	---	-----	-----	---------

**CIN, COURSE TITLE:** C-603-9407, H-60 Airframes and Related Systems (Career) Organizational Maintenance  
(Track D-602-0882)

**TRAINING ACTIVITY:** MTU 1066 NAMTRAGRU DET

**LOCATION, UIC:** NS Mayport, 66069

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQD	DATE REQD	GFE CFE	STATUS
----------	---	----------	-----------	---------	--------

**TTE**

010	IMD HUMS OBS Components (Individual Components are TBD)	1	TBD	CFE	Pending
-----	---	---	-----	-----	---------

011	IMD HUMS GBS Software	1	TBD	CFE	Pending
-----	-----------------------	---	-----	-----	---------

**ST**

002	SH-60B IMD HUMS Special Tool Kit	1	TBD	CFE	Pending
-----	----------------------------------	---	-----	-----	---------

**CIN, COURSE TITLE:** C-603-9407, H-60 Airframes and Related Systems (Career) Organizational Maintenance  
(Track E-602-0882)

**TRAINING ACTIVITY:** MTU 1067 NAMTRAU

**LOCATION, UIC:** NAS North Island, 66065

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQD	DATE REQD	GFE CFE	STATUS
----------	---	----------	-----------	---------	--------

**TTE**

010	IMD HUMS OBS Components (Individual Components are TBD)	1	TBD	CFE	Pending
-----	---	---	-----	-----	---------

011	IMD HUMS GBS Software	1	TBD	CFE	Pending
-----	-----------------------	---	-----	-----	---------

**ST**

002	SH-60B IMD HUMS Special Tool Kit	1	TBD	CFE	Pending
-----	----------------------------------	---	-----	-----	---------

**IV.A.2. TRAINING DEVICES**

**Note:** The following CH-53E and SH-60B Training Devices will require modification to include components of the IMD HUMS:

**DEVICE:** 2F171, CH-53 Aircrew Procedures Trainer (APT)  
**DESCRIPTION:** The CH-53E APT provides the capability for procedure and proficiency training of Pilots and Copilots under both normal and emergency conditions in the operation, navigation, and communications of the CH-53E Helicopter in fulfillment of their designated missions. This device only provides training in a stationary environment.

**MANUFACTURER:** NAWCAD  
**CONTRACT NUMBER:** N0001999WXBS92A  
**TEE STATUS:** NA

**TRAINING ACTIVITY:** HMT 302  
**LOCATION, UIC:** MCAS New River, 31493

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1	FY01	FY01	Pending	MC-1 MC-2 MC-3 MC-4 M-601-2722

**DEVICE:** 2F174, CH-53 Weapons System Trainer (WST)  
**DESCRIPTION:** The CH-53E WST is used to train crewmembers in all modes of the operational aircraft's mission. The device simulates the response of the CH-53E controls, instruments, and systems, to include the aural, motion, and force-feel sensations. The device provides the capability for procedure and proficiency training of Pilots and Copilots under both normal and emergency conditions in the operation, navigation, and communications of the CH-53E Helicopter in fulfillment of the designated missions.

**MANUFACTURER:** Sperry Rand Corporation (Now Unisys Corporation)  
**CONTRACT NUMBER:** N61339-79-C-0079  
**TEE STATUS:** NA

**TRAINING ACTIVITY:** HMT 302  
**LOCATION, UIC:** MCAS New River, 31493

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1	May 94	May 94	Onboard	MC-1 MC-2 MC-3 MC-4 M-601-2722

**IV.A.2. TRAINING DEVICES**

**DEVICE:** 2F135, SH-60B Operational Flight Trainer  
**DESCRIPTION:** Device description is classified Secret.  
**MANUFACTURER:** Lockheed  
**CONTRACT NUMBER:** N00019-81-C-0172  
**TEE STATUS:** NA

**TRAINING ACTIVITY:** HSL-40 FRS  
**LOCATION, UIC:** NS Mayport, 53913

<b>QTY</b>	<b>DATE</b>	<b>RFT</b>	<b>STATUS</b>	<b>COURSES</b>
<b>REQD</b>	<b>REQD</b>	<b>DATE</b>		<b>SUPPORTED</b>
2	Jan 86	Jan 86	Onboard	D-2C-2501 D-2C-2502 D-2C-2503 D-2C-2504

**TRAINING ACTIVITY:** HSL-41 FRS  
**LOCATION, UIC:** NAS North Island, 55138

<b>QTY</b>	<b>DATE</b>	<b>RFT</b>	<b>STATUS</b>	<b>COURSES</b>
<b>REQD</b>	<b>REQD</b>	<b>DATE</b>		<b>SUPPORTED</b>
2	Jan 86	Jan 86	Onboard	E-2C-2501 E-2C-2502 E-2C-2503 E-2C-2504

**IV.A.2. TRAINING DEVICES**

**DEVICE:** 14B51, SH-60B Weapons Tactics Trainer  
**DESCRIPTION:** Device description is classified Secret.  
**MANUFACTURER:** Lockheed  
**CONTRACT NUMBER:** N00019-84-C-0025  
**TEE STATUS:** NA

**TRAINING ACTIVITY:** HSL-40 FRS  
**LOCATION, UIC:** NS Mayport, 53913

<b>QTY</b>	<b>DATE</b>	<b>RFT</b>	<b>STATUS</b>	<b>COURSES</b>
<b>REQD</b>	<b>REQD</b>	<b>DATE</b>		<b>SUPPORTED</b>
3	Jan 85	Jan 85	Onboard	D-2C-2501 D-2C-2502 D-2C-2503 D-2C-2504 D-050-2505 D-050-2510 D-050-2511

**TRAINING ACTIVITY:** HSL-41 FRS  
**LOCATION, UIC:** NAS North Island, 55138

<b>QTY</b>	<b>DATE</b>	<b>RFT</b>	<b>STATUS</b>	<b>COURSES</b>
<b>REQD</b>	<b>REQD</b>	<b>DATE</b>		<b>SUPPORTED</b>
2	Jan 85	Jan 85	Onboard	E-2C-2501 E-2C-2502 E-2C-2503 E-2C-2504 E-050-2505 E-050-2510 E-050-2511

**IV.A.2. TRAINING DEVICES**

**DEVICE:** 980531-1002-01, CH-53E Composite Maintenance Trainer  
**DESCRIPTION:** The CH-53E Composite Maintenance Trainer provides practical training for the power plant, power train, flight control, hydraulic, and miscellaneous systems.  
**MANUFACTURER:** Sikorsky Aircraft Corporation  
**CONTRACT NUMBER:** N0600-91-D-0419  
**TEE STATUS:** NA

**TRAINING ACTIVITY:** NAMTRA MARUNIT  
**LOCATION, UIC:** MCAS New River, 31493

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1	Oct 91	Oct 91	Onboard	C-602-9441, as part of Track M-102-2731 C-602-9456, as part of Track M-601-2720

**DEVICE:** 985031-5707-01, CH-53E AFCS Maintenance Trainer  
**DESCRIPTION:** The CH-53E AFCS Maintenance Trainer is utilized to simulate the AFCS system and allow the maintenance technicians to learn proper troubleshooting procedures, component location, installation, removal, and system operation.  
**MANUFACTURER:** Sikorsky Aircraft Corporation  
**CONTRACT NUMBER:** N00019-68-C-014  
**TEE STATUS:** NA

**TRAINING ACTIVITY:** NAMTRA MARUNIT  
**LOCATION, UIC:** MCAS New River, 31493

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1	Mar 86	Mar 86	Onboard	C-602-9451, as part of Track M-102-2731

**DEVICE:** 980531-2401-01, CH-53E Auxiliary Power Plant Trainer  
**DESCRIPTION:** The CH-53E Auxiliary Power Plant Trainer provides the equipment necessary for training technicians to maintain the CH-53E auxiliary power plant.  
**MANUFACTURER:** Sikorsky Aircraft Corporation  
**CONTRACT NUMBER:** N00019-68-C-047  
**TEE STATUS:** NA

**TRAINING ACTIVITY:** NAMTRA MARUNIT  
**LOCATION, UIC:** MCAS New River, 31493

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1	Sep 82	Sep 82	Onboard	C-602-9456, as part of Track M-601-2720

**IV.A.2. TRAINING DEVICES**

**DEVICE:** 980531-1502-01, CH-53 Rotor Head Trainer  
**DESCRIPTION:** The Rotor Head Trainer is used to provide hands on training to Power Plants and Airframe Technicians for the removal, replacement, and alignment of Components on the rotor head.  
**MANUFACTURER:** Sikorsky Aircraft Corporation  
**CONTRACT NUMBER:** N00019-78-C-041  
**TEE STATUS:** NA

**TRAINING ACTIVITY:** NAMTRA MARUNIT  
**LOCATION, UIC:** MCAS New River, 31493

<b>QTY REQD</b>	<b>DATE REQD</b>	<b>RFT DATE</b>	<b>STATUS</b>	<b>COURSES SUPPORTED</b>
1	Jan 94	Jan 94	Onboard	C-602-9456, as part of Track M-601-2720 C-603-9444, as part of Track M-602-2781

**DEVICE:** 980531-7103-01, CH-53E Communication, Navigation, and Identification Systems Trainer  
**DESCRIPTION:** The CH-53E Communication, Navigation, and Identification Systems Trainer provides Avionics Technicians training on the avionics systems used in the CH-53E Helicopter including system testing, troubleshooting, component removal, and replacement.  
**MANUFACTURER:** EER Systems  
**CONTRACT NUMBER:** Not Available  
**TEE STATUS:** NA

**TRAINING ACTIVITY:** NAMTRA MARUNIT  
**LOCATION, UIC:** MCAS New River, 31493

<b>QTY REQD</b>	<b>DATE REQD</b>	<b>RFT DATE</b>	<b>STATUS</b>	<b>COURSES SUPPORTED</b>
1	Sep 96	Sep 96	Onboard	C-602-9441, as part of Track M-102-2731

**DEVICE:** 980531-4202-01, CH-53A/D Electrical Systems Trainer  
**DESCRIPTION:** The CH-53E Electrical Systems Trainer provides Avionics Technicians training on the electrical systems of the helicopter including system testing, troubleshooting, component removal, and replacement.  
**MANUFACTURER:** Sikorsky Aircraft Corporation  
**CONTRACT NUMBER:** N00019-68-C-047  
**TEE STATUS:** NA

**TRAINING ACTIVITY:** NAMTRA MARUNIT  
**LOCATION, UIC:** MCAS New River, 31493

<b>QTY REQD</b>	<b>DATE REQD</b>	<b>RFT DATE</b>	<b>STATUS</b>	<b>COURSES SUPPORTED</b>
1	Sep 85	Sep 85	Onboard	C-602-9441, as part of Track M-102-2731

**IV.A.2. TRAINING DEVICES**

**DEVICE:** CH-53D Practical Job Trainer  
**DESCRIPTION:** The CH-53D Practical Job Trainer provides practical training for the power plant, power train, flight control, hydraulic, and miscellaneous systems.  
**MANUFACTURER:** Sikorsky Aircraft Corporation  
**CONTRACT NUMBER:** Not Available  
**TEE STATUS:** NA

**TRAINING ACTIVITY:** NAMTRA MARUNIT  
**LOCATION, UIC:** MCAS New River, 31493

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1	Jan 94	Jan 94	Onboard	C-602-9456, as part of Track M-601-2720 C-603-9444, as part of Track M-602-2781

**DEVICE:** SH-60B AFCS Trainer  
**DESCRIPTION:** The AFCS Trainer provides training on the stabilator system, analog stability augmentation system, and the electronic flight control system. Trainer applications include: demonstrations of principles of operation, practical application of testing, troubleshooting, servicing, removal and installation procedures, and student performance testing.

**MANUFACTURER:** Lockheed  
**CONTRACT NUMBER:** N00019-81-C-0172  
**TEE STATUS:** NA

**TRAINING ACTIVITY:** MTU 1066 NAMTRAGRU DET  
**LOCATION, UIC:** NS Mayport, 66069

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1	Jan 84	Jan 84	Onboard	C-102-9409 (Track D-102-0825) C-602-9409 (Track D-602-0851) C-602-9407 (Track D-602-0854)

**TRAINING ACTIVITY:** MTU 1067 NAMTRAU  
**LOCATION, UIC:** NAS North Island, 66065

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1	Jan 84	Jan 84	Onboard	C-102-9409 (Track D-102-0825) C-602-9409 (Track E-602-0851) C-602-9407 (Track D-602-0854)

**IV.A.2. TRAINING DEVICES**

**DEVICE:** SH-60B Avionics Maintenance Trainer  
**DESCRIPTION:** The AMT provides training in the checkout, troubleshooting, and repair techniques essential to restore the SH-60B Avionics System to an operational readiness condition.  
**MANUFACTURER:** Lockheed  
**CONTRACT NUMBER:** N00019-81-C-0172  
**TEE STATUS:** NA  
**TRAINING ACTIVITY:** MTU 1066 NAMTRAGRU DET  
**LOCATION, UIC:** NS Mayport, 66069

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1	Jan 84	Jan 84	Onboard	C-102-9406 (Track D-102-0820) C-102-9409 (Track D-102-0825) C-602-9407 (Track D-602-0854)

**TRAINING ACTIVITY:** MTU 1067 NAMTRAU  
**LOCATION, UIC:** NAS North Island, 66065

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1	Jan 84	Jan 84	Onboard	C-102-9406 (Track E-102-0820) C-102-9409 (Track E-102-0825) C-602-9407 (Track E-602-0854)

**DEVICE:** SH-60 Composite Maintenance Trainer  
**DESCRIPTION:** The CMT provides training for airframe, power plants, power train, hydraulics, flight controls, and instrument/indicating systems. Trainer applications include demonstrations of principles of operation, practical application of testing, troubleshooting, servicing, removal and installation procedures, and student performance testing.  
**MANUFACTURER:** Lockheed  
**CONTRACT NUMBER:** N00019-81-C-0172  
**TEE STATUS:** NA

**TRAINING ACTIVITY:** MTU 1066 NAMTRAGRU DET  
**LOCATION, UIC:** NS Mayport, 66069

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1	Jan 84	Jan 84	Onboard	C-601-9408 (Track D-601-0811) C-601-9407 (Track D-601-0813) C-603-9408 (Track D-602-0880) C-603-9407 (Track D-602-0882)

#### IV.A.2. TRAINING DEVICES

**TRAINING ACTIVITY:** MTU 1067 NAMTRAU  
**LOCATION, UIC:** NAS North Island, 66065

<b>QTY REQD</b>	<b>DATE REQD</b>	<b>RFT DATE</b>	<b>STATUS</b>	<b>COURSES SUPPORTED</b>
1	Jan 84	Jan 84	Onboard	C-601-9408 (Track E-601-0811) C-601-9407 (Track E-601-0813) C-603-9408 (Track E-602-0880) C-603-9407 (Track E-602-0882)

**DEVICE:** SH-60 Main Blade/BIM Trainer  
**DESCRIPTION:** The Main Blade/BIM Trainer provides training on the main blade and BIM systems. Trainer applications include: removal, installation, and servicing of the main rotor blade and BIM servicing.  
**MANUFACTURER:** Lockheed  
**CONTRACT NUMBER:** N00019-81-C-0172  
**TEE STATUS:** NA

**TRAINING ACTIVITY:** MTU 1066 NAMTRAGRU DET  
**LOCATION, UIC:** NS Mayport, 66069

<b>QTY REQD</b>	<b>DATE REQD</b>	<b>RFT DATE</b>	<b>STATUS</b>	<b>COURSES SUPPORTED</b>
1	Jan 84	Jan 84	Onboard	C-601-9408 (Track D-601-0811) C-601-9407 (Track D-601-0813) C-602-9407 (Track D-602-0854) C-603-9407 (Track D-602-0882)

**TRAINING ACTIVITY:** MTU 1067 NAMTRAU  
**LOCATION, UIC:** NAS North Island, 66065

<b>QTY REQD</b>	<b>DATE REQD</b>	<b>RFT DATE</b>	<b>STATUS</b>	<b>COURSES SUPPORTED</b>
1	Jan 84	Jan 84	Onboard	C-601-9408 (Track E-601-0811) C-601-9407 (Track E-601-0813) C-602-9407 (Track E-602-0854) C-603-9407 (Track E-602-0882)

#### IV.A.2. TRAINING DEVICES

**DEVICE:** SH-60 Starboard Engine Part Task Trainer  
**DESCRIPTION:** The Starboard Engine Part Task Trainer provides training on maintenance of the Engine Systems. Trainer applications include: demonstrations of starboard engine installation, interface, and control system adjustments, principles of operation, practical application of testing, and troubleshooting, servicing, removal and installation procedures, and student performance testing.

**MANUFACTURER:** Lockheed  
**CONTRACT NUMBER:** N00019-81-C-0172  
**TEE STATUS:** NA

**TRAINING ACTIVITY:** MTU 1066 NAMTRAGRU DET  
**LOCATION, UIC:** NS Mayport, 66069

<b>QTY</b>	<b>DATE</b>	<b>RFT</b>	<b>STATUS</b>	<b>COURSES</b>
<b>REQD</b>	<b>REQD</b>	<b>DATE</b>		<b>SUPPORTED</b>
1	Jan 84	Jan 84	Onboard	C-601-9408 (Track D-601-0811) C-601-9407 (Track D-601-0813) C-602-9409 (Track D-602-0851) C-602-9407 (Track D-602-0854)

**TRAINING ACTIVITY:** MTU 1067 NAMTRAU  
**LOCATION, UIC:** NAS North Island, 66065

<b>QTY</b>	<b>DATE</b>	<b>RFT</b>	<b>STATUS</b>	<b>COURSES</b>
<b>REQD</b>	<b>REQD</b>	<b>DATE</b>		<b>SUPPORTED</b>
1	Jan 84	Jan 84	Onboard	C-601-9408 (Track E-601-0811) C-601-9407 (Track E-601-0813) C-602-9409 (Track E-602-0851) C-602-9407 (Track E-602-0854)

#### IV.B. COURSEWARE REQUIREMENTS

##### IV.B.1. TRAINING SERVICES

COURSE/TYPE OF TRAINING	SCHOOL LOCATION, UIC	NO. OF PERSONNEL	MAN WEEKS REQUIRED	DATE BEGIN
Initial training for CH-53E OT personnel	HMT 302 MCAS New River 31493	4	8	Sep 02
Initial training for SH-60B OT personnel	HSL-41 FRS North Island 55138	TBD	TBD	TBD
Initial training for CH-53E cadre personnel	HMT 302 MCAS New River 55203	TBD	TBD	TBD
Initial training for SH-60B cadre personnel	HSL-41 FRS North Island 55138	TBD	TBD	TBD
Initial training for CH-53E squadron personnel	Fleet Squadron (See note)	TBD	TBD	TBD
Initial training for SH-60B squadron personnel	Fleet Squadron (See note)	TBD	TBD	TBD

**Note:** Initial training for CH-53 and SH-60B squadron personnel will be conducted at each activity in conjunction with fleet introduction.

#### **IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS**

**Note:** No additional curricula materials will be required to support the IMD HUMS. Existing student guides, instructor guides, student tests, and course lesson plans will be updated with IMD HUMS information. The IMD HUMS will not create a requirement for any training aids. Curricula materials requirements are addressed in detail in the CH-53E NTSP, A-50-7604G/A, dated February 2001 and the Light Airborne Multi-Purpose System (SH-60B) NTSP, A-50-7702C/D, dated August 2001 and, therefore, will not be duplicated in this NTSP.

### IV.B.3. TECHNICAL MANUALS

**Note:** No new technical Manuals will be developed to support the IMD HUMS. No existing technical manuals will be deleted as a result of the IMD HUMS. IMD HUMS data will be incorporated into existing technical manuals. The following CH-53E and SH-60B technical manuals will require revision to include IMD HUMS information.

**CIN, COURSE TITLE:** MC-1, CH-53 Basic Pilot Training  
**TRAINING ACTIVITY:** HMT 302 FRS  
**LOCATION, UIC:** MCAS New River, 55203

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
A1-H53BE-NFM-000 NATOPS Flight Manual, CH-53E Helicopter	Hard copy	14	Jun 99	Onboard
A1-H53BE-NFM-500 NATOPS Pilots Pocket Checklist, CH-53E Helicopter	Hard copy	14	Jun 99	Onboard

**CIN, COURSE TITLE:** MC-2, CH-53 Transition Pilot Training  
**TRAINING ACTIVITY:** HMT 302 FRS  
**LOCATION, UIC:** MCAS New River, 55203

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
A1-H53BE-NFM-000 NATOPS Flight Manual, CH-53E Helicopter	Hard copy	12	Jun 99	Onboard
A1-H53BE-NFM-500 NATOPS Pilots Pocket Checklist, CH-53E Helicopter	Hard copy	12	Jun 99	Onboard

**CIN, COURSE TITLE:** MC-3, CH-53 Conversion Pilot Training  
**TRAINING ACTIVITY:** HMT 302 FRS  
**LOCATION, UIC:** MCAS New River, 55203

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
A1-H53BE-NFM-000 NATOPS Flight Manual, CH-53E Helicopter	Hard copy	3	Jun 99	Onboard
A1-H53BE-NFM-500 NATOPS Pilots Pocket Checklist, CH-53E Helicopter	Hard copy	3	Jun 99	Onboard

**CIN, COURSE TITLE:** MC-4, CH-53 Refresher Pilot Training  
**TRAINING ACTIVITY:** HMT 302 FRS  
**LOCATION, UIC:** MCAS New River, 55203

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
A1-H53BE-NFM-000 NATOPS Flight Manual, CH-53E Helicopter	Hard copy	3	Jun 99	Onboard
A1-H53BE-NFM-500 NATOPS Pilots Pocket Checklist, CH-53E Helicopter	Hard copy	3	Jun 99	Onboard

**IV.B.3. TECHNICAL MANUALS**

**CIN, COURSE TITLE:** M-601-2722, CH-53E Crew Chief Training Syllabus  
**TRAINING ACTIVITY:** HMT 302 FRS  
**LOCATION, UIC:** MCAS New River, 55203

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H53CE-MRC-100 CH-53E/MH-53E Turnaround Checklist, Organizational Maintenance instruction	Hard copy	40	Jun 99	Onboard
A1-H53BE-NFM-000 NATOPS Flight Manual, CH-53E Helicopter	Hard copy	40	Jun 99	Onboard
A1-H53BE-NFM-900 NATOPS Aircrew Pocket Checklist, CH-53E Helicopter	Hard copy	40	Jun 99	Onboard

**CIN, COURSE TITLE:** D-2C-2501, SH-60B Category I Fleet Replacement Pilot  
**TRAINING ACTIVITY:** HSL-40 FRS  
**LOCATION, UIC:** Mayport, 53913

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H60BB-NFM-000 NATOPS Flight Manual	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-010 Weapon System Manual	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-010C Weapon System Manual (Classified Supplement)	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-500 NATOPS Pilot's Pocket Checklist	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-700 NATOPS Functional Checklist	Hard copy	20	Jan 84	Onboard
A1-H60BB-TAC-000 Weapon System Tactical Manual	Hard copy	20	Jan 84	Onboard

**CIN, COURSE TITLE:** E-2C-2501, SH-60B Category I Fleet Replacement Pilot  
**TRAINING ACTIVITY:** HSL-41 FRS  
**LOCATION, UIC:** North Island, 55138

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H60BB-NFM-000 NATOPS Flight Manual	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-010 Weapon System Manual	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-010C Weapon System Manual (Classified Supplement)	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-500	Hard copy	20	Jan 84	Onboard

**IV.B.3. TECHNICAL MANUALS**

NATOPS Pilot's Pocket Checklist

A1-H60BB-NFM-700 NATOPS Functional Checklist	Hard copy	20	Jan 84	Onboard
---	-----------	----	--------	---------

A1-H60BB-TAC-000 Weapon System Tactical Manual	Hard copy	20	Jan 84	Onboard
---	-----------	----	--------	---------

**CIN, COURSE TITLE:** D-2C-2502, SH-60B Category II Fleet Replacement Pilot

**TRAINING ACTIVITY:** HSL-40 FRS

**LOCATION, UIC:** Mayport, 53913

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H60BB-NFM-000 NATOPS Flight Manual	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-010 Weapon System Manual	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-010C Weapon System Manual (Classified Supplement)	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-500 NATOPS Pilot's Pocket Checklist	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-700 NATOPS Functional Checklist	Hard copy	20	Jan 84	Onboard
A1-H60BB-TAC-000 Weapon System Tactical Manual	Hard copy	20	Jan 84	Onboard

**CIN, COURSE TITLE:** E-2C-2502, SH-60B Category II Fleet Replacement Pilot

**TRAINING ACTIVITY:** HSL-41 FRS

**LOCATION, UIC:** North Island, 55138

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H60BB-NFM-000 NATOPS Flight Manual	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-010 Weapon System Manual	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-010C Weapon System Manual (Classified Supplement)	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-500 NATOPS Pilot's Pocket Checklist	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-700 NATOPS Functional Checklist	Hard copy	20	Jan 84	Onboard
A1-H60BB-TAC-000 Weapon System Tactical Manual	Hard copy	20	Jan 84	Onboard

**IV.B.3. TECHNICAL MANUALS**

**CIN, COURSE TITLE:** D-2C-2503, SH-60B Category III Fleet Replacement Pilot  
**TRAINING ACTIVITY:** HSL-40 FRS  
**LOCATION, UIC:** Mayport, 53913

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H60BB-NFM-000 NATOPS Flight Manual	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-010 Weapon System Manual	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-010C Weapon System Manual (Classified Supplement)	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-500 NATOPS Pilot's Pocket Checklist	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-700 NATOPS Functional Checklist	Hard copy	20	Jan 84	Onboard
A1-H60BB-TAC-000 Weapon System Tactical Manual	Hard copy	20	Jan 84	Onboard

**CIN, COURSE TITLE:** E-2C-2503, SH-60B Category III Fleet Replacement Pilot  
**TRAINING ACTIVITY:** HSL-41 FRS  
**LOCATION, UIC:** North Island, 55138

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H60BB-NFM-000 NATOPS Flight Manual	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-010 Weapon System Manual	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-010C Weapon System Manual (Classified Supplement)	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-500 NATOPS Pilot's Pocket Checklist	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-700 NATOPS Functional Checklist	Hard copy	20	Jan 84	Onboard
A1-H60BB-TAC-000 Weapon System Tactical Manual	Hard copy	20	Jan 84	Onboard

**CIN, COURSE TITLE:** D-2C-2504, SH-60B Category IV Fleet Replacement Pilot  
**TRAINING ACTIVITY:** HSL-40 FRS  
**LOCATION, UIC:** Mayport, 53913

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H60BB-NFM-000 NATOPS Flight Manual	Hard copy	20	Jan 84	Onboard

**IV.B.3. TECHNICAL MANUALS**

A1-H60BB-NFM-010 Weapon System Manual	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-010C Weapon System Manual (Classified Supplement)	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-500 NATOPS Pilot's Pocket Checklist	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-700 NATOPS Functional Checklist	Hard copy	20	Jan 84	Onboard
A1-H60BB-TAC-000 Weapon System Tactical Manual	Hard copy	20	Jan 84	Onboard

**CIN, COURSE TITLE:** E-2C-2504, SH-60B Category IV Fleet Replacement Pilot  
**TRAINING ACTIVITY:** HSL-41 FRS  
**LOCATION, UIC:** North Island, 55138

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H60BB-NFM-000 NATOPS Flight Manual	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-010 Weapon System Manual	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-010C Weapon System Manual (Classified Supplement)	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-500 NATOPS Pilot's Pocket Checklist	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-700 NATOPS Functional Checklist	Hard copy	20	Jan 84	Onboard
A1-H60BB-TAC-000 Weapon System Tactical Manual	Hard copy	20	Jan 84	Onboard

**CIN, COURSE TITLE:** D-050-2505, SH-60B Fleet Replacement Aircrewman Instructor Under Training  
**TRAINING ACTIVITY:** HSL-40 FRS  
**LOCATION, UIC:** Mayport, 53913

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H60BB-NFM-000 NATOPS Flight Manual	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-010 Weapon System Manual	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-700 NATOPS Functional Checklist	Hard copy	20	Jan 84	Onboard

**CIN, COURSE TITLE:** D-050-2505, SH-60B Fleet Replacement Aircrewman Instructor Under Training

**IV.B.3. TECHNICAL MANUALS**

**TRAINING ACTIVITY:** HSL-41 FRS  
**LOCATION, UIC:** North Island, 55138

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H60BB-NFM-000 NATOPS Flight Manual	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-010 Weapon System Manual	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-700 NATOPS Functional Checklist	Hard copy	20	Jan 84	Onboard

**IN, COURSE TITLE:** D-050-2510, SH-60B Category I Fleet Replacement Aircrewman Training  
**TRAINING ACTIVITY:** HSL-40 FRS  
**LOCATION, UIC:** Mayport, 53913

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H60BB-NFM-000 NATOPS Flight Manual	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-010 Weapon System Manual	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-700 NATOPS Functional Checklist	Hard copy	20	Jan 84	Onboard

**CIN, COURSE TITLE:** D-050-2511, SH-60B Category II Fleet Replacement Aircrewman Training  
**TRAINING ACTIVITY:** HSL-40 FRS  
**LOCATION, UIC:** Mayport, 53913

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H60BB-NFM-000 NATOPS Flight Manual	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-010 Weapon System Manual	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-700 NATOPS Functional Checklist	Hard copy	20	Jan 84	Onboard

**CIN, COURSE TITLE:** E-050-2511, SH-60B Category II Fleet Replacement Aircrewman Training  
**TRAINING ACTIVITY:** HSL-41 FRS  
**LOCATION, UIC:** North Island, 55138

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H60BB-NFM-000 NATOPS Flight Manual	Hard copy	20	Jan 84	Onboard
A1-H60BB-NFM-010 Weapon System Manual	Hard copy	20	Jan 84	Onboard

**IV.B.3. TECHNICAL MANUALS**

A1-H60BB-NFM-700 Hard copy 20 Jan 84 Onboard  
 NATOPS Functional Checklist

**CIN, COURSE TITLE:** C-102-9945, CH-53A/D/E Communication/Navigation/Identification/Electronic Countermeasures Systems Organizational Maintenance, as part of Track M-102-2731

**TRAINING ACTIVITY:** NAMTRA MARUNIT  
**LOCATION, UIC:** MCAS New River, 31493

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
A1-H53CE-570-000 Automatic Flight Control Systems	Hard copy	40	Oct 91	Onboard
A1-H53CE-570-200 Automatic Flight Control Systems	Hard copy	40	Oct 91	Onboard
A1-H53CE-570-400 Automatic Flight Control Systems	Hard copy	40	Oct 91	Onboard
A1-H53CE-600-000 Communication Systems	Hard copy	40	Oct 91	Onboard
A1-H53CE-600-400 Communication Systems (IPB)	Hard copy	40	Oct 91	Onboard
A1-H53CE-700-000 Navigation Systems	Hard copy	40	Oct 91	Onboard
A1-H53CE-700-400 Navigation Systems	Hard copy	40	Oct 91	Onboard

**CIN, COURSE TITLE:** C-602-9441, CH-53E Electrical Systems Integrated Organizational Maintenance, as part of Track M-102-2731

**TRAINING ACTIVITY:** NAMTRA MARUNIT  
**LOCATION, UIC:** MCAS New River, 31493

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
A1-H53CE-220-000 Propulsion Systems Organizational Maintenance	Hard copy	40	Oct 91	Onboard
A1-H53CE-AML-000 Technical Manual	Hard copy	40	Oct 91	Onboard
A1-H53CE-420-000 Electrical Systems Organizational Maintenance	Hard copy	40	Oct 91	Onboard
A1-H53CE-320-100 Electrical Systems Principal of Operation	Hard copy	40	Oct 91	Onboard
A1-H53CE-020-200 Electrical Systems Testing and Troubleshooting	Hard copy	40	Oct 91	Onboard
A1-H53CE-420-400 Electrical System IPB	Hard copy	40	Oct 91	Onboard
A1-H53CE-500-000	Hard copy	40	Oct 91	Onboard

**IV.B.3. TECHNICAL MANUALS**

Instrument Systems Maintenance

A1-H53CE-500-400 Instrument System IPB	Hard copy	40	Oct 91	Onboard
---	-----------	----	--------	---------

**CIN, COURSE TITLE:** C-602-9451, CH-53E Dual Digital Automatic Flight Control System Integrated Organizational Maintenance (Track M-102-2731)

**TRAINING ACTIVITY:** NAMTRA MARUNIT

**LOCATION, UIC:** MCAS New River, 31493

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H53CE-570-000 Automatic Flight Control Systems Organizational Maintenance	Hard copy	40	Oct 91	Onboard
A1-H53BE-NFM-000 NATOPS Flight Manual	Hard copy	40	Oct 91	Onboard
A1-H53CE-140-000 Flight Control Systems Organizational Maintenance	Hard copy	40	Oct 91	Onboard
A1-H53CE-140-400 Flight Control Systems IPB	Hard copy	40	Oct 91	Onboard

**CIN, COURSE TITLE:** C-602-9456, CH-53E Helicopter Mechanic Organizational Maintenance (Track M-601-2720)

**TRAINING ACTIVITY:** NAMTRA MARUNIT

**LOCATION, UIC:** MCAS New River, 31493

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H53AD-140-000 Flight Control Systems Manual with IPB	Hard copy	30	Sep 93	Onboard
A1-H53AD-150-000 Rotor systems Manual with IPB	Hard copy	30	Sep 93	Onboard
A1-H53AD-260-000 Transmission Systems Manual with IPB	Hard copy	30	Sep 93	Onboard
A1-H53AD-GAI-000 General Aircraft Information	Hard copy	30	Sep 93	Onboard
A1-H53AD-IPB-450 Organizational and Intermediate Illustrated Parts Breakdown	Hard copy	30	Sep 93	Onboard
A1-H53CE-MRC-000 Periodic Maintenance Information Cards	Hard copy	30	Sep 93	Onboard
A1-H53CE-MRC-100 Turnaround Checklist	Hard copy	30	Sep 93	Onboard
A1-H53CE-MRC-300 Special/Conditional/Preservation/ASPA Maintenance Requirement Cards	Hard copy	30	Sep 93	Onboard
A1-H53CE-110-000 Airframe Systems Maintenance	Hard copy	30	Sep 93	Onboard

**IV.B.3. TECHNICAL MANUALS**

A1-H53CE-140-000 Flight Control systems Maintenance	Hard copy	30	Sep 93	Onboard
A1-H53CE-140-100 Flight Control Systems POM	Hard copy	30	Sep 93	Onboard
A1-H53CE-140-400 Flight Control Systems IPB	Hard copy	30	Sep 93	Onboard
A1-H53CE-150-000 Rotor Systems Maintenance	Hard copy	30	Sep 93	Onboard
A1-H53CE-150-400 Rotor Systems IPB	Hard copy	30	Sep 93	Onboard
A1-H53CE-220-400 Propulsion Systems IPB	Hard copy	30	Sep 93	Onboard
A1-H53CE-260-000 Transmission Systems Maintenance	Hard copy	30	Sep 93	Onboard
A1-H53CE-260-400 Transmission Systems IPB	Hard copy	30	Sep 93	Onboard

**CIN, COURSE TITLE:** C-603-9444, CH-53E Airframes Integrated Organizational Maintenance (Track M-602-2781)  
**TRAINING ACTIVITY:** NAMTRA MARUNIT  
**LOCATION, UIC:** MCAS New River, 31493

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H53AD-110-000 Airframe System Maintenance with IPB	Hard copy	30	Jan 94	Onboard
A1-H53AD-140-000 Flight Control Systems Maintenance with IPB	Hard copy	30	Jan 94	Onboard
A1-H53CE-150-000 Rotor Systems Maintenance	Hard copy	30	Sep 93	Onboard
A1-H53CE-150-400 Rotor Systems IPB	Hard copy	30	Sep 93	Onboard
A1-H53CE-260-000 Transmission Systems Maintenance	Hard copy	30	Sep 93	Onboard
A1-H53CE-260-400 Transmission Systems IPB	Hard copy	30	Sep 93	Onboard
A1-H53CE-000-000 Utility Systems Maintenance	Hard copy	30	Sep 93	Onboard
A1-H53CE-400-400 Utility Systems IPB	Hard copy	30	Sep 93	Onboard
A1-H53AD-GAI-000 General Information Manual	Hard copy	30	Jan 94	Onboard
A1-H53CE-110-000 Airframe Maintenance Organizational Maintenance	Hard copy	30	Jan 94	Onboard

### IV.B.3. TECHNICAL MANUALS

A1-H53CE-140-000 Manual Flight Control Systems Organizational Maintenance	Hard copy	30	Jan 94	Onboard
A1-H53CE-150-000 Rotor Systems Organizational Maintenance	Hard copy	30	Jan 94	Onboard
A1-H53CE-220-000 Propulsion Systems Organizational Maintenance	Hard copy	30	Jan 94	Onboard
A1-H53CE-260-000 Transmission Systems Organizational Maintenance	Hard copy	30	Jan 94	Onboard
A1-H53CE-GAI-000 General Aircraft Information Manual Organizational Maintenance	Hard copy	30	Jan 94	Onboard
A1-H53CE-IPB-450 Numerical Index and Reference Designation Index Organizational Maintenance IPB	Hard copy	30	Jan 94	Onboard
A1-H53CE-SRM-000 Structural Repair Manual, Model CH53E	Hard copy	30	Jan 94	Onboard

**CIN, COURSE TITLE:** C-102-9406, SH-60B LAMPS MK III Weapon Systems Technician (Initial) Organizational Maintenance (Track D-102-0820)

**TRAINING ACTIVITY:** MTU 1066 NAMTRAGRU DET

**LOCATION, UIC:** NS Mayport, 66069

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
A1-H60BB-690-100 Principles of Operation, Communications Subsystem, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-690-400 Illustrated Parts Breakdown, Communications Subsystem, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-720-100 Principles of Operation, Mission Sensor Systems, Navy Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-720-400 Illustrated Parts Breakdown, Mission Equipment Subsystem, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-740-100 Principles of Operation, Data Handling/Data Display Subsystem, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-740-400 Illustrated Parts Breakdown, Data Handling/Data Display Subsystem, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard

**IV.B.3. TECHNICAL MANUALS**

A1-H60BB-750-100 Principles of Operation, Weapons Delivery System, Navy Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-750-400 Illustrated Parts Breakdown, Weapons Delivery Subsystem, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-IWS-100 Principles of Operation, Integrated Weapon System, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-MRC-000 Periodic Maintenance Information Cards, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-MRC-100 Turnaround Checklist, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-MRC-300 Daily Maintenance Requirements Cards, Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-MRC-350 Special/Preservation/ASPA Maintenance Requirement Cards, Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-NFM-000 NATOPS Flight Manual, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-NFM-010 LAMPS MK III Weapon System Manual	Hard copy	8	Jan 84	Onboard
A1-H60BB-WDM-000 Wiring Data Manual, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-WUC-800 Work Unit Code Manual, Model H-60	Hard copy	8	Jan 84	Onboard

**CIN, COURSE TITLE:** C-102-9406, SH-60B LAMPS MK III Weapon Systems Technician (Initial) Organizational Maintenance (Track E-102-0820)

**TRAINING ACTIVITY:** MTU 1067 NAMTRAU

**LOCATION, UIC:** NAS North Island, 66065

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H60BB-690-100 Principles of Operation, Communications Subsystem, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-690-400 Illustrated Parts Breakdown, Communications Subsystem, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-720-100 Principles of Operation, Mission Sensor Systems, Navy	Hard copy	8	Jan 84	Onboard

### IV.B.3. TECHNICAL MANUALS

Models SH-60B and SH-60F

A1-H60BB-720-400 Illustrated Parts Breakdown, Mission Equipment Subsystem, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-740-100 Principles of Operation, Data Handling/Data Display Subsystem, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-740-400 Illustrated Parts Breakdown, Data Handling/Data Display Subsystem, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-750-100 Principles of Operation, Weapons Delivery System, Navy Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-750-400 Illustrated Parts Breakdown, Weapons Delivery Subsystem, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-IWS-100 Principles of Operation, Integrated Weapon System, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-MRC-000 Periodic Maintenance Information Cards, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-MRC-100 Turnaround Checklist, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-MRC-300 Daily Maintenance Requirements Cards, Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-MRC-350 Special/Preservation/ASPA Maintenance Requirement Cards, Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-NFM-000 NATOPS Flight Manual, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-NFM-010 LAMPS MK III Weapon System Manual	Hard copy	8	Jan 84	Onboard
A1-H60BB-WDM-000 Wiring Data Manual, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-WUC-800 Work Unit Code Manual, Model H-60	Hard copy	8	Jan 84	Onboard

**CIN, COURSE TITLE:** C-102-9409, SH-60B LAMPS MK III Weapon System Technician (Career) Organizational Maintenance (Track D-102-0825)

**TRAINING ACTIVITY:** MTU 1066 NAMTRAGRU DET

**IV.B.3. TECHNICAL MANUALS**

**LOCATION, UIC:** NS Mayport, 66069

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H60BB-690-100 Principles of Operation, Communications Subsystem, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-720-100 Principles of Operation, Mission Sensor Systems, Navy Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-740-100 Principles of Operation, Data Handling/Data Display Subsystem, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-750-100 Principles of Operation, Weapons Delivery System, Navy Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-ATM-010 Avionics Test Manual Checklist, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-IWS-100 Principles of Operation, Integrated Weapon System, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-NFM-010 LAMPS MK III Weapon System Manual	Hard copy	8	Jan 84	Onboard
A1-H60BB-WUC-800 Work Unit Code Manual, Model H-60	Hard copy	8	Jan 84	Onboard

**CIN, COURSE TITLE:** C-102-9409, SH-60B LAMPS MK III Weapon System Technician (Career) Organizational Maintenance (Track E-102-0825)

**TRAINING ACTIVITY:** MTU 1067 NAMTRAU

**LOCATION, UIC:** NAS North Island, 66065

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H60BB-690-100 Principles of Operation, Communications Subsystem, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-720-100 Principles of Operation, Mission Sensor Systems, Navy Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-740-100 Principles of Operation, Data Handling/Data Display Subsystem, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-750-100 Principles of Operation, Weapons Delivery System, Navy	Hard copy	8	Jan 84	Onboard

**IV.B.3. TECHNICAL MANUALS**

Models SH-60B and SH-60F

A1-H60BB-ATM-010 Avionics Test Manual Checklist, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-IWS-100 Principles of Operation, Integrated Weapon System, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-NFM-010 LAMPS MK III Weapon System Manual	Hard copy	8	Jan 84	Onboard
A1-H60BB-WUC-800 Work Unit Code Manual, Model H-60	Hard copy	8	Jan 84	Onboard

**CIN, COURSE TITLE:** C-601-9408, SH-60F/HH-60H Power Plants and Related Systems (Initial) Organizational Maintenance (Track D-601-0811)

**TRAINING ACTIVITY:** MTU 1066 NAMTRAGRU DET

**LOCATION, UIC:** NS Mayport, 66069

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H60BB-460-100 Principles of Operation, Fuel Systems, Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-510-100 Principles of Operation, Instrument Systems, Navy Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-560-100 Principles of Operation, Flight Reference and AFCS, Navy Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-720-100 Principles of Operation, Mission Sensor Systems, Navy Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-750-100 Principles of Operation, Weapons Delivery System, Navy Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-IPB-450 Illustrated Parts Breakdown, Numerical Index and Reference Designation Index, Navy Model SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-WUC-800 Work Unit Code Manual, Model H-60	Hard copy	8	Jan 84	Onboard
A1-H60CA-690-100 Principles of Operation, Communications Systems, Navy Models SH-60B, SH-60F, HH-60H, and HH-60J	Hard copy	8	Jan 84	Onboard
A1-H60CA-710-100 Principles of Operation, Navigation Systems, Navy Models	Hard copy	8	Jan 84	Onboard

**IV.B.3. TECHNICAL MANUALS**

SH-60B, SH-60F, HH-60H, and HH-60J

A1-H60CA-740-100 Principles of Operation, Tactical Data Management Systems, Navy Models SH-60B, SH-60F, HH-60H, and HH-60J	Hard copy	8	Jan 84	Onboard
A1-H60CA-MRC-100 Turnaround Checklist, Navy Models SH-60B, SH-60F, HH-60H, and HH-60J	Hard copy	8	Jan 84	Onboard
A1-H60CA-MRC-300 Daily Maintenance Requirements, Navy Models SH-60B, SH-60F, HH-60H, and HH-60J	Hard copy	8	Jan 84	Onboard
A1-H60CA-MRC-350 Maintenance Requirements Cards, Navy Models SH-60B, SH-60F, HH-60H, and HH-60J	Hard copy	8	Jan 84	Onboard
A1-H60CA-WDM-000 Wiring Data Manual, Navy Models SH-60B, SH-60F, HH-60H, and HH-60J	Hard copy	8	Jan 84	Onboard

**CIN, COURSE TITLE:** C-601-9408, SH-60F/HH-60H Power Plants and Related Systems (Initial) Organizational Maintenance  
(Track E-601-0811)

**TRAINING ACTIVITY:** MTU 1067 NAMTRAU

**LOCATION, UIC:** NAS North Island, 66065

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H60BB-460-100 Principles of Operation, Fuel Systems, Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-510-100 Principles of Operation, Instrument Systems, Navy Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-560-100 Principles of Operation, Flight Reference and AFCS, Navy Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-720-100 Principles of Operation, Mission Sensor Systems, Navy Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-750-100 Principles of Operation, Weapons Delivery System, Navy Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-IPB-450 Illustrated Parts Breakdown, Numerical Index and Reference Designation Index, Navy Model SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-WUC-800 Work Unit Code Manual, Model H-60	Hard copy	8	Jan 84	Onboard

**IV.B.3. TECHNICAL MANUALS**

A1-H60CA-690-100 Principles of Operation, Communications Systems, Navy Models SH-60B, SH-60F, HH-60H, and HH-60J	Hard copy	8	Jan 84	Onboard
A1-H60CA-710-100 Principles of Operation, Navigation Systems, Navy Models SH-60B, SH-60F, HH-60H, and HH-60J	Hard copy	8	Jan 84	Onboard
A1-H60CA-740-100 Principles of Operation, Tactical Data Management Systems, Navy Models SH-60B, SH-60F, HH-60H, and HH-60J	Hard copy	8	Jan 84	Onboard
A1-H60CA-MRC-100 Turnaround Checklist, Navy Models SH-60B, SH-60F, HH-60H, and HH-60J	Hard copy	8	Jan 84	Onboard
A1-H60CA-MRC-300 Daily Maintenance Requirements, Navy Models SH-60B, SH-60F, HH-60H, and HH-60J	Hard copy	8	Jan 84	Onboard
A1-H60CA-MRC-350 Maintenance Requirements Cards, Navy Models SH-60B, SH-60F, HH-60H, and HH-60J	Hard copy	8	Jan 84	Onboard
A1-H60CA-WDM-000 Wiring Data Manual, Navy Models SH-60B, SH-60F, HH-60H, and HH-60J	Hard copy	8	Jan 84	Onboard

**CIN, COURSE TITLE:** C-601-9407, H-60 Power Plants and Related Systems (Career) Organizational Maintenance (Track D-601-0813)  
**TRAINING ACTIVITY:** MTU 1066 NAMTRAGRU DET  
**LOCATION, UIC:** NS Mayport, 66069

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
A1-H60BB-WUC-800 Work Unit Code Manual, Model H-60	Hard copy	8	Jan 84	Onboard
A1-H60CA-MRC-400 Phased Maintenance Requirements Cards, Navy Models SH-60B, SH-60F, HH-60H, HH-60J	Hard copy	8	Jan 84	Onboard

**CIN, COURSE TITLE:** C-601-9407, H-60 Power Plants and Related Systems (Career) Organizational Maintenance (Track E-601-0813)  
**TRAINING ACTIVITY:** MTU 1067 NAMTRAU  
**LOCATION, UIC:** NAS North Island, 66065

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
A1-H60BB-WUC-800 Work Unit Code Manual, Model H-60	Hard copy	8	Jan 84	Onboard

**IV.B.3. TECHNICAL MANUALS**

A1-H60CA-MRC-400 Hard copy 8 Jan 84 Onboard  
 Phased Maintenance Requirements Cards, Navy Models SH-60B,  
 SH-60F, HH-60H, HH-60J

**CIN, COURSE TITLE:** C-602-9409, H-60 Electrical/Instrument and Flight Control Systems (Initial) Organizational Maintenance  
 (Track D-602-0851)

**TRAINING ACTIVITY:** MTU 1066 NAMTRAGRU DET

**LOCATION, UIC:** NS Mayport, 66069

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H60BB-560-100 Principles of Operation, Flight Reference and AFCS, Navy Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-NFM-000 NATOPS Flight Manual, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-WUC-800 Work Unit Code Manual, Model H-60	Hard copy	8	Jan 84	Onboard
A1-H60CA-IPB-450 Illustrated Parts Breakdown, Numerical Index and Reference Designation Index	CD ROM	8	Jan 84	Onboard
A1-H60CA-MRC-350 Maintenance Requirements Cards, Navy Models SH-60B, SH-60F, HH-60H, and HH-60J	Hard copy	8	Jan 84	Onboard
A1-H60CA-WDM-000 Wiring Data Manual, Navy Models SH-60B, SH-60F, HH-60H, and HH-60J	Hard copy	8	Jan 84	Onboard
A1-H60FB-420-100 Principles of Operation, Electrical Power and Aircraft Lighting Systems	Hard copy	8	Jan 84	Onboard
A1-H60FB-460-100 Principles of Operation, Fuel System	Hard copy	8	Jan 84	Onboard
A1-H60FB-510-100 Principles of Operation, Instrument Systems	Hard copy	8	Jan 84	Onboard
A1-H60FB-560-100 Principles of Operation, Flight Reference and AFCS	Hard copy	8	Jan 84	Onboard
A1-H60FB-720-100 Principles of Operation, Mission Sensor Systems	Hard copy	8	Jan 84	Onboard

**IV.B.3. TECHNICAL MANUALS**

**CIN, COURSE TITLE:** C-602-9409, H-60 Electrical/Instrument and Flight Control Systems (Initial) Organizational Maintenance (Track E-602-0851)  
**TRAINING ACTIVITY:** MTU 1067 NAMTRAU  
**LOCATION, UIC:** NAS North Island, 66065

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
A1-H60BB-560-100 Principles of Operation, Flight Reference and AFCS, Navy Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-NFM-000 NATOPS Flight Manual, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-WUC-800 Work Unit Code Manual, Model H-60	Hard copy	8	Jan 84	Onboard
A1-H60CA-IPB-450 Illustrated Parts Breakdown, Numerical Index and Reference Designation Index	CD ROM	8	Jan 84	Onboard
A1-H60CA-MRC-350 Maintenance Requirements Cards, Navy Models SH-60B, SH-60F, HH-60H, and HH-60J	Hard copy	8	Jan 84	Onboard
A1-H60CA-WDM-000 Wiring Data Manual, Navy Models SH-60B, SH-60F, HH-60H, and HH-60J	Hard copy	8	Jan 84	Onboard
A1-H60FB-420-100 Principles of Operation, Electrical Power and Aircraft Lighting Systems	Hard copy	8	Jan 84	Onboard
A1-H60FB-460-100 Principles of Operation, Fuel System	Hard copy	8	Jan 84	Onboard
A1-H60FB-510-100 Principles of Operation, Instrument Systems	Hard copy	8	Jan 84	Onboard
A1-H60FB-560-100 Principles of Operation, Flight Reference and AFCS	Hard copy	8	Jan 84	Onboard
A1-H60FB-720-100 Principles of Operation, Mission Sensor Systems	Hard copy	8	Jan 84	Onboard

**CIN, COURSE TITLE:** C-602-9407, H-60 Electrical and Automatic Flight Control System (Career) Organizational Maintenance (Track D-602-0854)  
**TRAINING ACTIVITY:** MTU 1066 NAMTRAGRU DET  
**LOCATION, UIC:** NS Mayport, 66069

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
A1-H60BB-460-100 Principles of Operation, Fuel Systems, Models SH-60B	Hard copy	8	Jan 84	Onboard

**IV.B.3. TECHNICAL MANUALS**

and SH-60F

A1-H60BB-560-100 Principles of Operation, Flight Reference and AFCS, Navy Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-WUC-800 Work Unit Code Manual, Model H-60	Hard copy	8	Jan 84	Onboard
A1-H60FB-560-100 Principles of Operation, Flight Reference and AFCS	Hard copy	8	Jan 84	Onboard

**CIN, COURSE TITLE:** C-602-9407, H-60 Electrical and Automatic Flight Control System (Career) Organizational Maintenance (Track E-602-0854)  
**TRAINING ACTIVITY:** MTU 1067 NAMTRAU  
**LOCATION, UIC:** NAS North Island, 66065

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H60BB-460-100 Principles of Operation, Fuel Systems, Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-560-100 Principles of Operation, Flight Reference and AFCS, Navy Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-WUC-800 Work Unit Code Manual, Model H-60	Hard copy	8	Jan 84	Onboard
A1-H60FB-560-100 Principles of Operation, Flight Reference and AFCS	Hard copy	8	Jan 84	Onboard

**CIN, COURSE TITLE:** C-603-9408, H-60 Airframes and Related Systems (Initial) Organizational Maintenance (Track D-602-0880)  
**TRAINING ACTIVITY:** MTU 1066 NAMTRAGRU DET  
**LOCATION, UIC:** NS Mayport, 66069

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H60BB-110-100 Principles of Operation, Airframes and Landing Gear Systems, Navy Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-410-100 Principles of Operation, Environmental Control System, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-560-100 Principles of Operation, Flight Reference and AFCS, Navy Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-750-100 Principles of Operation, Weapons Delivery System, Navy	Hard copy	8	Jan 84	Onboard

**IV.B.3. TECHNICAL MANUALS**

Models SH-60B and SH-60F

A1-H60BB-SRM-400 Organizational and Intermediate Structural Repair, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-WUC-800 Work Unit Code Manual, Model H-60	Hard copy	8	Jan 84	Onboard
A1-H60CA-MRC-350 Maintenance Requirements Cards, Navy Models SH-60B, SH-60F, HH-60H, and HH-60J	Hard copy	8	Jan 84	Onboard
A1-H60FB-410-100 Principles of Operation, Environmental Control Systems	Hard copy	8	Jan 84	Onboard
A1-H60FB-560-100 Principles of Operation, Flight Reference and AFCS	Hard copy	8	Jan 84	Onboard

**CIN, COURSE TITLE:** C-603-9408, H-60 Airframes and Related Systems (Initial) Organizational Maintenance (Track E-602-0880)

**TRAINING ACTIVITY:** MTU 1067 NAMTRAU

**LOCATION, UIC:** NAS North Island, 66065

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H60BB-110-100 Principles of Operation, Airframes and Landing Gear Systems, Navy Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-410-100 Principles of Operation, Environmental Control System, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-560-100 Principles of Operation, Flight Reference and AFCS, Navy Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-750-100 Principles of Operation, Weapons Delivery System, Navy Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-SRM-400 Organizational and Intermediate Structural Repair, Navy Model SH-60B	Hard copy	8	Jan 84	Onboard
A1-H60BB-WUC-800 Work Unit Code Manual, Model H-60	Hard copy	8	Jan 84	Onboard
A1-H60CA-MRC-350 Maintenance Requirements Cards, Navy Models SH-60B, SH-60F, HH-60H, and HH-60J	Hard copy	8	Jan 84	Onboard
A1-H60FB-410-100	Hard copy	8	Jan 84	Onboard

**IV.B.3. TECHNICAL MANUALS**

Principles of Operation, Environmental Control Systems

A1-H60FB-560-100 Principles of Operation, Flight Reference and AFCS	Hard copy	8	Jan 84	Onboard
--	-----------	---	--------	---------

**CIN, COURSE TITLE:** C-603-9407, H-60 Airframes and Related Systems (Career) Organizational Maintenance (Track D-602-0882)

**TRAINING ACTIVITY:** MTU 1066 NAMTRAGRU DET

**LOCATION, UIC:** NS Mayport, 66069

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H60BB-110-000 Principles of Operation, Airframes and Landing Gear Systems, Navy Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-WUC-800 Work Unit Code Manual, Model H-60	Hard copy	8	Jan 84	Onboard
A1-H60CA-MRC-350 Maintenance Requirements Cards, Navy Models SH-60B, SH-60F, HH-60H, and HH-60J	Hard copy	8	Jan 84	Onboard

**CIN, COURSE TITLE:** C-603-9407, H-60 Airframes and Related Systems (Career) Organizational Maintenance (Track E-602-0882)

**TRAINING ACTIVITY:** MTU 1067 NAMTRAU

**LOCATION, UIC:** NAS North Island, 66065

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
A1-H60BB-110-000 Principles of Operation, Airframes and Landing Gear Systems, Navy Models SH-60B and SH-60F	Hard copy	8	Jan 84	Onboard
A1-H60BB-WUC-800 Work Unit Code Manual, Model H-60	Hard copy	8	Jan 84	Onboard
A1-H60CA-MRC-350 Maintenance Requirements Cards, Navy Models SH-60B, SH-60F, HH-60H, and HH-60J	Hard copy	8	Jan 84	Onboard

**PART V - MPT MILESTONES**

<b>COG CODE</b>	<b>MPT MILESTONES</b>	<b>DATE</b>	<b>STATUS</b>
CNO	Approved Mission Needs Statement for IMD	Jun 94	Completed
PDA	Conducted Initial Training for CH-53E and SH-60B IMD HUMS DT	Sep 99	Completed
PDA	Began CH53E and SH-60B IMD HUMS DT	Sep 99	On-going
PEO(A)	Reached LRIP Decision for CH-53E IMD HUMS	Aug 00	Completed
TSA	Developed IMD HUMS Initial NTSP	Feb 01	Completed
PEO(A)	Reached LRIP Decision for SH-60B IMD HUMS	Apr 01	Completed
TSA	Developed IMD HUMS Draft NTSP	Aug 02	Completed
PDA	Conduct Initial Training for CH-53E IMD HUMS OT Personnel	Oct 02	Pending
PDA	Begin CH-53E IMD HUMS OT	Nov 02	Pending
PDA	Conduct Initial Training for SH-60B IMD HUMS OT Personnel	Jan 03	Pending
PDA	Begin SH-60B IMD HUMS OT	Feb 03	Pending
PDA	Achieve CH-53E IMD HUMS IOC	Oct 03	Pending
PDA	Achieve SH-60B IMD HUMS IOC	May 04	Pending
PDA	Complete CH-53E IMD HUMS DT	Jul 04	Pending
PDA	Complete SH-60B IMD HUMS DT	Dec 04	Pending
PDA	Complete CH-53E IMD HUMS OT	Mar 05	Pending
PDA	Complete SH-60B IMD HUMS OT	Sep 05	Pending
PDA	Achieve IMD HUMS NSD	TBD	Pending
PDA	Achieve IMD HUMS MSD	TBD	Pending
PDA	Conduct Initial Training for CH-53E IMD HUMS Cadre Personnel	TBD	Pending
PDA	Conduct Initial Training for SH-60B IMD HUMS Cadre Personnel	TBD	Pending
PDA	Begin CH-53E IMD HUMS initial Fleet Introduction Training for Squadron Personnel	TBD	Pending
PDA	Begin SH-60B IMD HUMS Initial Fleet Introduction Training for Squadron Personnel	TBD	Pending
PDA	Conduct IMD HUMS Technical Publication Validation and Verification	TBD	Pending
TSA	Begin Modification of TDs at IMD HUMS Training Sites	TBD	Pending
TSA	Deliver IMD HUMS TTE to Follow-On Training Sites	TBD	Pending
TSA	Deliver STs to IMD HUMS Follow-On Training Sites	TBD	Pending
TSA	Deliver Updated Technical Publications to Follow-On Training Sites	TBD	Pending
TA	Achieve RFT Date for CH-53E IMD HUMS Follow-On Training	TBD	Pending
TA	Achieve RFT Date for SH-60B IMD HUMS Follow-On Training	TBD	Pending



**PART VI - DECISION ITEMS / ACTION REQUIRED**

<b>DECISION ITEM OR ACTION REQUIRED</b>	<b>COMMAND ACTION</b>	<b>DUE DATE</b>	<b>STATUS</b>
Establish Target MSD	NAVAIR		Pending
Establish Target NSD	NAVAIR		Pending
Establish Target Date for CH-53E IMD HUMS Initial Cadre Training	NAVAIR		Pending
Establish Target Date for SH-60B IMD HUMS Initial Cadre Training	NAVAIR		Pending
Establish Target Date for CH-53E IMD HUMS Initial Squadron Introduction Training	NAVAIR		Pending
Establish Target Date for SH-60B IMD HUMS Initial Squadron Introduction Training	NAVAIR		Pending
Establish Date to Begin Technical Publication Validation and Verification	NAVAIR		Pending
Establish Installation Schedule for TD Modifications at Follow-On Training Sites	NAVAIR		Pending
Establish Delivery Schedule for TTE to Follow-On Training Sites	NAVAIR		Pending
Establish Delivery Schedule for STs to Follow-On Training Sites	NAVAIR		Pending
Establish Delivery Schedule for Updated Technical Publications To Follow-On Training Sites	NAVAIR		Pending
Establish Target RFT Date for CH-53E IMD HUMS Follow-On Training	NAVAIR		Pending
Establish Target RFT Date for SH-60B IMD HUMS Follow-On Training	NAVAIR		Pending



## PART VII - POINTS OF CONTACT

### NAME / FUNCTION / ACTIVITY, CODE / INTERNET EMAIL

### TELEPHONE NUMBERS

**CAPT Owen Fletcher**

Deputy Aviation Maintenance Programs  
CNO, N781B  
fletcher.owen@hq.navy.mil

**COMM:** (703) 604-7747  
**DSN:** 664-7747  
**FAX:** (703) 604-6972

**LTCOL Terry Stautberg, USMC**

H-46 / H-53 Requirements Officer  
CNO, N780F3  
stautberg.terry@hq.navy.mil

**COMM:** (703) 695-2816  
**DSN:** 225-2816  
**FAX:** (703) 614-7047

**CDR Wanda Janus**

Resource Sponsor / Program Sponsor  
CNO, N785D1  
janus.wanda@hq.navy.mil

**COMM:** (703) 602-7720  
**DSN:** 227- 7720  
**FAX:** (703) 602-8523

**CAPT Terry Merritt**

Head, Aviation Technical Training Branch  
CNO, N789H  
merritt.terry@hq.navy.mil

**COMM:** (703) 604-7730  
**DSN:** 664-7730  
**FAX:** (703) 604-6939

**AZCS Gary Greenlee**

NTSP Manager  
CNO, N789H7  
greenlee.gary@hq.navy.mil

**COMM:** (703) 604-7709  
**DSN:** 664-7709  
**FAX:** (703) 604-6939

**CDR Kevin Neary**

Aviation Manpower  
CNO, N122C1  
n122c1@bupers.navy.mil

**COMM:** (703) 695-3247  
**DSN:** 225-3247  
**FAX:** (703) 614-5308

**Mr. Robert Zweibel**

Training Technology Policy  
CNO, N795K  
zweibel.robert@hq.navy.mil

**COMM:** (703) 602-5151  
**DSN:** 332-5151  
**FAX:** (703) 602-5175

**COL David Barraclough, USMC**

Branch Head, USMC Aviation Manpower Management  
CMC, ASM-1  
barracloughdl@hqmc.usmc.mil

**COMM:** (703) 614-1244  
**DSN:** 224-1244  
**FAX:** (703) 614-1309

**LTCOL Angela Clingman, USMC**

USMC Aircraft Maintenance Officer  
CMC, ASL-33  
clingmanab@hqmc.usmc.mil

**COMM:** (703) 614-1187  
**DSN:** 224-1187  
**FAX:** (703) 697-7343

**Mr. William Laray**

H-53 Assistant Program Manager Training Systems  
NAVAIR, PMA205-2B  
laraywr@navair.navy.mil

**COMM:** (301) 757-8099  
**DSN:** 757-8099  
**FAX:** (301) 757-6941

**CDR Henry Jackson**

SH-60B/R Assistant Program Manager Training Systems  
NAVAIR, PMA205-2D1  
jacksonhm@navair.navy.mil

**COMM:** (301) 757-8159  
**DSN:** 757-8159  
**FAX:** (301) 757-5437



## PART VII - POINTS OF CONTACT

### NAME / FUNCTION / ACTIVITY, CODE / INTERNET EMAIL

### TELEPHONE NUMBERS

**CAPT Q. J. Rosa**

H-60 Assistant Program Manager Logistics  
NAVAIR, AIR 3.1.2  
rosajs.ntrprs@navair.navy.mil

**COMM:** (301) 757-5339  
**DSN:** 757-5339  
**FAX:** (301) 757-5276

**Mr. Sam Benge**

H-60 IMD HUMS Deputy Assistant Program Manager Logistics  
NAVAIR, AIR 3.1.2Q3  
bengesm@navair.navy.mil

**COMM:** (301) 757-5343  
**DSN:** 757-5343  
**FAX:** (301) 757-5276

**LTCOL Lawrence Loch, USMC**

H-53 Assistant Program Manager Logistics  
NAVAIR, AIR 3.1.2F  
lochls@navair.navy.mil

**COMM:** (301) 757-5776  
**DSN:** 757-5776  
**FAX:** (301) 757-5276

**Mr. Ray Beasley**

Assistant Program Manager Logistics  
NAVAIR, AIR 3.1.2F  
beasleyr@navair.navy.mil

**COMM:** (301) 757-5768  
**DSN:** 757-5768  
**FAX:** (301) 757-5109

**Mr. Harry Jackson**

H-53 Reliability and Maintainability Logistics Element Manager  
NAVAIR, AIR 4.1.6.2  
jacksonhg@navair.navy.mil

**COMM:** (301) 342-1241  
**DSN:** 342-1241  
**FAX:** (301) 342-1232

**Mr. Pat Edwards**

H-60 Reliability and Maintainability Logistics Element Manager  
NAVAIR, AIR 4.1.6.2  
edwardspd@navair.navy.mil

**COMM:** (301) 342-1234  
**DSN:** 342-1234  
**FAX:** (301) 342-1232

**Mr. Al Logan**

H-60 IMD IPT Leader  
NAVAIR, AIR 4.5.1.1  
loganal@navair.navy.mil

**COMM:** (301) 342-0078  
**DSN:** 342-0078  
**FAX:** (301) 757-5276

**Mr. Mark Bailer**

H-53 IMD IPT Leader  
NAVAIR, AIR 4.5.1.2  
bailerm@navair.navy.mil

**COMM:** (301) 757-5779  
**DSN:** 757-5779  
**FAX:** (301) 757-5109

**Mr. Dave Bilger**

H-53 IMD Maintenance  
NAVAIR, H-53 ISST.4  
bilgerda@navair.navy.mil

**COMM:** (252) 464-5610  
**DSN:** 464-5610  
**FAX:** (252) 464-6431

**AZCM Kevin Green**

AMTCS Training Systems Manager  
NAVAIR, PMA205-3D3  
greenkl@navair.navy.mil

**COMM:** (301) 757-8120  
**DSN:** 757-8120  
**FAX:** (301) 757-6941

**CDR Mike Hohl**

Aviation NTSP Point of Contact  
CINCLANTFLT, N71  
hohlmj@clf.navy.mil

**COMM:** (757) 836-0085  
**DSN:** 836-0085  
**FAX:** (757) 836-6737



## PART VII - POINTS OF CONTACT

### NAME / FUNCTION / ACTIVITY, CODE / INTERNET EMAIL

### TELEPHONE NUMBERS

**CAPT Pat Salsman**

Branch Head, Training Requirements and Assessments  
CINCLANTFLT, N72  
salsmancp@clf.navy.mil

**COMM:** (757) 863-6495  
**DSN:** 863-6495  
**FAX:** (757) 863-6794

**Mr. Bob Long**

Deputy Director for Training  
CINCPACFLT, N70  
longrh@cpf.navy.mil

**COMM:** (808) 471-8513  
**DSN:** 315-471-8513 (OUTCONUS)  
**FAX:** (808) 471-8596

**YN1 Dashawn Simmons**

Selected Reservist Quota Control  
COMNAVAIRESFOR, N-333  
simmonsds@cnrf.nola.navy.mil

**COMM:** (504) 678-1850  
**DSN:** 678-1850  
**FAX:** (504) 678-5064

**CDR Timothy Ferree**

Branch Head, Aviation Enlisted Assignments  
NAVPERSCOM, PERS-404  
p404@persnet.navy.mil

**COMM:** (901) 874-3691  
**DSN:** 882-3691  
**FAX:** (901) 874-2642

**MAJ Henry Domingue, USMC**

Head, ACE Branch, TFS Division  
MCCDC, C5325A  
dominguehj@mccdc.usmc.mil

**COMM:** (703) 784-6241  
**DSN:** 278-6241  
**FAX:** (703) 784-6072

**MSGT Ralph Stark, USMC**

USMC AMTCS Coordinator  
MCCDC, C473  
starkrr@tecom.usmc.mil

**COMM:** (703) 784-3709  
**DSN:** 278-3709  
**FAX:** (703) 784-3729

**MSGT Jerry Moore, USMC**

USMC MATMEP Coordinator  
MCCDC, C473  
moorej1@tecom.usmc.mil

**COMM:** (703) 784-3710  
**DSN:** 278-3710  
**FAX:** (703) 784-3729

**MGYSGT Joseph Townley, USMC**

USMC AMTCS Coordinator  
MCCDC, C473  
townleyjb@tecom.usmc.mil

**COMM:** (703) 784-3707  
**DSN:** 278-3707  
**FAX:** (703) 784-3729

**CDR Rose Wynn**

Aviation Department Head  
NAVMAC, 30  
rose.wynn@navmac.navy.mil

**COMM:** (901) 874-6218  
**DSN:** 882-6218  
**FAX:** (901) 874-6471

**SKCS Parthina Jacobs**

NTSP Coordinator (Assistant)  
NAVMAC, 32  
parthina.jacobs@navmac.navy.mil

**COMM:** (901) 874-6483  
**DSN:** 882-6483  
**FAX:** (901) 874-6471

**Mr. Robert Leitch**

CNET Management Analyst Integration Branch  
CNET, N7C124  
robert-d.leitch@cnet.navy.mil

**COMM:** (850) 452-9688  
**DSN:** 922-9688  
**FAX:** (850) 452-8113



## PART VII - POINTS OF CONTACT

### NAME / FUNCTION / ACTIVITY, CODE / INTERNET EMAIL

### TELEPHONE NUMBERS

**CDR Erich Blunt**

Aviation Technical Training  
CNET, ETE-32  
cdr-erich.blunt@cnet.navy.mil

**COMM:** (850) 452-4915  
**DSN:** 922-4915  
**FAX:** (850) 452-4901

**LCDR Rick Lawson**

NTSP Manager  
COMOPTEVFOR, 533  
lawsonr@cotg.navy.mil

**COMM:** (757) 444-5087 ext. 3354  
**DSN:** 564-5087 ext. 3354  
**FAX:** (757) 444-3820

**GYSGT Frank Samsel, USMC**

Training Coordinator  
NAMTRAGRU HQ, N2124  
gysgt.francis.r.samsel@cnet.navy.mil

**COMM:** (850) 452-9742 ext. 230  
**DSN:** 922-9712 ext. 230  
**FAX:** (850) 452-9952

**CDR David Brumfield**

H-60 Supply Support Logistics Element Manager  
NAVICP  
david\_brumfield@icpphil.navy.mil

**COMM:** (215) 697-4033  
**DSN:** 697-4033  
**FAX:** (215) 697-5251

**MAJ Steve Minarik, USMC**

H-53 Supply Support Logistics Element Manager  
NAVICP  
steve\_minarks@icpphil.navy.mil

**COMM:** (215) 697-5430  
**DSN:** 697-5430  
**FAX:** (215) 697-3436

**Mr. Rich Ward**

Supply Support Logistics Element Manager H-60  
NAVICP  
richard\_ward@icpphil.navy.mil

**COMM:** (215) 697-0862  
**DSN:** 697-0862  
**FAX:** (215) 697-5251

**Mr. Sam Hunt**

H-53 Technical Data  
NATEC, 3.3.1  
hunts3@natec.navy.mil

**COMM:** (619) 545-2207  
**DSN:** 545-2207  
**FAX:** (619) 545-1883

**Mr. Bill Loucks**

NTSP Author  
MAGA, Inc.  
loucksb@chesapeake.net

**COMM:** (301) 862-2758  
**DSN:** NA  
**FAX:** (301) 737.6442

**Mr. Phil Szczyglowski**

Competency Manager  
NAVAIR, AIR 3.4.1  
szczyglowspr@navair.navy.mil

**COMM:** (301) 757-8280  
**DSN:** 757-8280  
**FAX:** (301) 342-7737

**Mr. Bob Kresge**

NTSP Manager  
NAVAIR, AIR 3.4.1  
kresgerj@navair.navy.mil

**COMM:** (301) 757-1844  
**DSN:** 757-1844  
**FAX:** (301) 342-7737

**ADCS Steve Reed**

NTSP Coordinator  
NAVAIR, AIR 3.4.1  
reedps@navair.navy.mil

**COMM:** (301) 757-3107  
**DSN:** 757-3107  
**FAX:** (301) 342-7737